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New York State Museum Bulletin

Entered as second-class matter November 27, 1915, at the Post Office at Albany, New York under the act of August 24, 1912. Acceptance for mailing at special rate of postage provided for in section 1103, act of October 3, 1917, authorized July 19, 1918

Published monthly by The University of the State of New York

Nos. 235, 236 ALBANY, N. Y. JULY-AUGUST 1920

The University of the State of New York

New York State Museum

JOHN M. CLARKE, Director

THE ARCHEOLOGICAL HISTORY OF NEW YORK

BY ARTHUR C. PARKER, ARCHEOLOGIST

Part 1

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The University of the State of New York

State Museum, February 18, 1919

Dr John H. Finley
President of the University

SIR: I beg to transmit to you herewith and recommend for publication as a bulletin of the State Museum the accompanying manuscript of an "Archeological History of the State of New York" which has been prepared by Arthur C. Parker, Archeologist.

Very respectfully

JOHN M. CLARKE
Director

Approved for publication



President of the University

[3]



General view of Archeology Hall, looking west from the center. New York State Museum, east mezzanine floor.

New York State Museum Bulletin

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The University of the State of New York

New York State Museum

JOHN M. CLARKE, Director

THE ARCHEOLOGICAL HISTORY OF NEW YORK

BY ARTHUR C. PARKER, ARCHEOLOGIST

Part 1

FOREWORD

This bulletin is intended as a general guide to New York archeology. It has been written with a dual obligation in mind,—an obligation to science and to the interests of scientific men, and also to the much larger body of amateur archeologists and collectors. Archeology owes much to the local collector who has gathered his specimens with the best light that he had. Much more might have been accomplished if a manual of this kind had been prepared many years ago. This bulletin, therefore, is intended as a general work explaining the field of archeology as it exists in this State. It does not purport to be exhaustive or even complete in any of its parts. Almost any division and any subject herein contained and described might form the topic of a separate bulletin or an even larger treatise. Our aim is rather to afford enough light to enable both the student and the professional archeologist to understand the relation of New York archeology to American archeology in general. Without doubt there is enough to provoke further inquiry and to open up new channels of endeavor.

The bulletin is arranged in parts and subsections as follows:

Introduction

I Origin of Material Culture and the Distribution of the Various Races of Man

1 Importance of Archeological Research

2 Origin of Material Culture and Human Progress

3 Origin and Distribution of Man in North America

II The Aboriginal Occupation of New York
1 Physiographic Features Inviting Occupation
2 The Field of Archeology in New York
3 The Problems of New York Archeology
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5 The Iroquoian Occupation of New York
IV Certain Type Sites Intensively Explored
1 Burning Spring Prehistoric Iroquoian Site
By Arthur C. Parker
2 A Prehistoric Iroquoian Village and Burial Site in Chautauqua County
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3 A Prehistoric Iroquoian Site on the George Reed Farm, Richmond Mills, Ontario County
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4 A Midcolonial Seneca Site in Erie County
By M. Raymond Harrington
5 Double Wall Fort
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7 Notes on An Ancient Semicircular Earthwork in Chautauqua County
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By Harrison C. Follett
9 The Shelby Earthworks
By Frank Hamilton Cushing
10 Prehistoric Iroquoian Sites in Northern New York
By M. Raymond Harrington
11 The Owasco Algonkian Site
By Arthur C. Parker
12 Two Characteristic Coastal Algonkian Sites
By Arthur C. Parker
V Notes on Certain Archeological Subjects
VI Archeological Localities in the State of New York

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INTRODUCTION

For many years New York State has been a prolific field fo students of American archeology. Indeed, large collections o aboriginal artifacts were made long before students of natura science had any adequate idea of the cultural significance of th objects they discovered. To the early collector the curious implement of the Indians were simply "relics" and no special effort was mad to record anything about these "relics" except to give the name o the collector and the date of the finding, both facts relatively unim portant.

No definite scientific value was attached to examples of aborigi nal art, and specimens from every locality were mixed in boxes o scattered over shelves. Large collections have become scattere and lost. The hundreds of "curious relics" found by farmers i plowing or by amateur mound explorers have been lost. Moun after mound has been dug and destroyed.

Today most collectors are better informed, and the cultural remain of the race that formerly occupied this continent, are careful pre served, cataloged and labeled. Science has taken the lead and ask for facts. Today the pottery pipe and engraved gorget, and eve the humble arrowhead are regarded as "archeological specimens. Definite scientific problems have arisen and challenge us to solv them. Every artifact left in the soil by the vanished red men may b of importance, if the associated facts are properly recorded. Th position of a banner stone in a grave may unlock some secret; th presence of pottery even in the form of fragments may she important light upon a knotty problem in archeology. A conscientiou collector observes and records everything for he knows that a care less collector is a destroying vandal who merely confuses himsel and others, and ruins the field of inquiry for the better informed.

New York State for a full century has been systematically hunte for relics, but only during the past twenty years has any scientifi method been pursued on any considerable scale. Some early observa tions were made by H. R. Schoolcraft, L. H. Morgan, E. G. Squie Franklin B. Hough, Frank H. Cushing and T. Apoleon Cheney, bu most of these authorities did little more than point out the ferti field that existed within our borders. With them the all-importa problem seems to have been "Who were the mound builders?

Observers at that time had not yet recorded the fact that the Iroquois did not use or make banner stones, or that stamped patterns characterized Algonkian pottery, or that grooved axes were found only on non-Iroquoian sites. It remained for later students such as W. M. Beauchamp, M. R. Harrington, Alanson Skinner, Frederick Houghton and the present writer to differentiate types of occupation, though other observers working in other localities had perhaps cleared the way for an understanding of the New York cultural areas.

New York archeology owes much to the work of Prof. Frederic Putnam, William H. Holmes, Charles C. Abbott, Cyrus Thomas, William C. Mills and Warren K. Moorehead, and in later days to Charles C. Willoughby, Christopher Wren and Col. George E. Laidlaw, all of whom, working in the areas surrounding New York, cleared the way or contributed information for a more adequate understanding of the New York field. It was Dr William Beauchamp, however, who did most to draw attention to certain specific problems and his pioneer work has borne abundant fruit. His series of bulletins on New York archeological subjects, published by the State Museum, did much to stimuate study. Doctor Beauchamp was one of the first archeologists to point out the evidences of Eskimoan influence in New York.

Interest in the evidences of the former Indian occupation of this area has grown from a mere idle curiosity to a serious desire to preserve and to interpret the specimens that are so abundant. Through the efforts of Melvil Dewey in 1896 an appropriation of $5000 was made for the purchase of collections. By this appropriation bill the State Museum was given an "Indian department" charged with the duty of making collections and of studying and recording the facts of Indian culture. In the fulfilment of this obligation A. G. Richmond of Canajoharie, a collector, was given the duty of making the first purchases. Later the cooperation of Doctor Beauchamp was obtained. Mrs Harriet Maxwell Converse, whose father, Hon. Thomas Maxwell, had been adopted by the Seneca tribe, became interested and donated a considerable collection of ethnological specimens. From this time on the State Museum has made every endeavor consistent with its resources and other duties to build up its archeological collections. It should not be forgotten, however, that the "Indian department" of the State Museum had its real origin in the work and collections of Lewis Henry Morgan for the Museum as early as 1849. Morgan's work was ethnological rather than archeological, but as the two sciences are interrelated and

coordinated, Morgan must be recognized as the father of New York archeological science. Certainly his researches and publications stimulated a large amount of interest not only in this State but throughout America and to an equal extent in Europe. From Morgan's study of the New York aborigines and their antiquities came the inspiration that has made anthropologists, sociologists and political economists recognize him as one of America's foremost observers, and to look to this State as a singularly important field of research and the place of valuable source material.

Students have been drawn to the New York field, some moved to research by a study of the Indians still living in our midst; others by an interest in the prehistoric remains found scattered through valleys and over terraces. Many other men and women who have no professional interest in science have yet been vitally interested in the study of various branches of sociology and anthropology through a knowledge of the cultural relics in the State. Even successful business men have benefited through pursuit of archeology as an avocation. One keen-minded young man employed by a corporation of experts in business efficiency, upon the inquiry of the executive officer as to how he developed his extraordinary powers of close observation answered, "By the experience I gained in hunting Indian relics." With much enthusiasm he confessed to the writer the secret of his rapid progress. "I owe all my success," said he, "to that first snub nose little arrow point I found when a boy. It taught me how to look for things."

Perhaps it is because the search for archeological specimens and the subsequent effort to make a correct interpretation of them so develops observation and clear thinking, that business and professional men manifest so keen an interest in such collecting. Aside from this is the zest of out-of-door exercise, bringing health as well as wisdom. There are many factors connected with the study of Indian artifacts that make American archeology an attractive science. It is a human science, it awakens the imagination along logical lines, it teaches the use of resources nearest at hand, thereby developing ingenuity; it cultivates attention to small details, thereby stimulating observation; and, as an outdoor study, it cultivates a keen appreciation of the land in which one lives. The archeologist, dealing with what early men made, whether flint points or fortifications with earthen walls, comes to have a broader, higher perspective of humanity. He is capable of understanding men better because he knows more of man's history. Dealing also with the

iidden records of early races, the archeologist develops
of geology from the human side. To the arche-
eology and history have a special significance. The
nows how primitive man literally hewed out his
re from the rocks that the geologist knows as schist,
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t be understood aside from the knowledge afforded and
by archeology.

nterest in the archeology of New York State has
growing demand for explanatory literature. Essential
en scattered through books, departmental bulletins,
periodicals, and have not been available to the student
ho did not possess a considerable library. For some
n apparent to the writer that a general handbook was
ed, the announcement that one was in course of pre-
ght forth numerous requests that copies be reserved.
is a response to a need expressed by many collectors
ıal archeologists. It is a brief attempt to define the
es, to describe certain type specimens, certain import-
ıs, and, finally, to give a list of localities showing
boriginal occupation. We shall not here discuss the
tribes found at the opening of the colonial period or
ropean trade articles.

sites are probably incomplete. New places will
from time to time. Certain errors no doubt will be
ists, for our citations have been compiled from long
by several hundred collectors, or drawn from his-
nd county histories. We are deeply grateful to those
ished information, lists and copies of maps. With-
ıis volume would not have been possible. A partial
s of those who assisted in the compilation of sites will
other part of the volume.

ginning great interest in the progress of this work has
d by the Director of the State Museum, Dr John M.
s shown a real appreciation of the interests of students
and has not only liberally supported our efforts to
ive material but has made possible the acquisition of
of archeological specimens that make up the State
ions. Special thanks are also due to Jacob VanDeloo,

secretary of the Museum for his painstaking labors in forwarding this publication.

In the preparation of this work special credit must be given to those who supplied extended manuscripts and unusual advantages for studying the field and in examining large collections. Among these have been Henry R. Howland, William L. Bryant, Frederick Houghton and George L. Tucker, all of Buffalo; Everett R. Burmaster and Obed Edson of Chautauqua county; M. Raymond Harrington and Alanson Skinner of New York; Alvin H. Dewey, Harrison C. Follett, E. Gordon Lee, E. D. Putnam and M. L. Baxter, all of Rochester; David R. Dorn, Adrian A. Pierson and Willard E. Yager of Otsego county; W. Max Schrabisch of Paterson, N. J., and finally to the dean of New York archeologists, Dr William M. Beauchamp. All these persons have rendered a service that has been of conspicuous value and one expensive to themselves. With such moral and material backing it has been a pleasant though lengthy task to prepare this bulletin.

To all those who made it possible and to those who need the guidance of its pages "The Archeological History of New York" is dedicated.

I

THE ORIGIN OF MATERIAL CULTURE AND THE DISTRIBUTION OF THE VARIOUS RACES OF MAN

1 THE IMPORTANCE OF ARCHEOLOGICAL RESEARCH

Since the remote days when man appeared upon earth, he has been writing his own history. This writing has been, as it were, a tattooing of the brown skin of the earth mother, and the ages have covered the tracings with layers and obscured them. It is the archeologist who locates the precise spots where this buried history is hidden and lifts the accumulated débris of the centuries and then translates the record into the language that men of today understand. This story of ancient man and his activities is of much importance to us of today, for what man has been helps man of today understand whence he came and why he is as he is; and what man is has a most important bearing on what man may be. Without this knowledge history is without a basis, and many important branches of science are incomplete.

Primitive peoples everywhere have passed through a succession of similar cultural stages. Thus, the earthen pottery, the chipped arrow points and bone awls of the British Isles are so similar to those found in America that one can scarcely tell them from the same objects found on the sites of the Indian villages of New York State. This means that the ancient inhabitants of York, England, 2500 years ago were living in about the same way and making the same things that the ancient inhabitants of New York, made at the same time and even two thousand years later, though one race was white and the other red, and though the Atlantic intervened and the two peoples had never seen or heard of each other. This fact is so well recognized by anthropologists and historians that the study of American archeology and the study of the methods of life and organization of the American Indians — the study of American ethnology — are accorded close attention by students of human evolution and cultural history everywhere.

A study of the condition of the American aborigines led to the solution of many questions that had previously puzzled students of the natural sciences. But while much has been learned, the new world yet presents several important problems in cultural history. Among these may be mentioned the problem of the origin of man

in America, whether the race is homogenous or composite, the emigrations of stocks and tribes, the origin of the stocks, the cause of the great diversity in languages, and the relations with the people of the old world in ancient times.

We are confronted with evidences of diverse forms of development and many interesting forms of material culture. Before us we have definite problems of the influence of climate, of food, of environment and of geographical location upon large groups of mankind. Nowhere else upon so fresh and fertile a field may this record of human development be studied with such advantage as in America. Here we may learn many of the basic facts of anthropology and follow them a long way, if not to a final conclusion.

Anthropology embraces several coordinate sciences, each of which is important in itself. The student of race origin and development will find that he must be principally concerned with somatology, ethnology and archeology, though there are other important branches which must be understood, if facts are to be logically correlated.

It is to local archeology, however, that in this work our attention is directed. Through the interpretations made by archeological methods our specific task is to determine what races, stocks and tribes occupied this State; to discover what they made; what they used; how and where they lived; what of art and science they knew; and, even more boldly, to discover, perchance, what these autochthones thought and desired.

Archeology, concerning itself with man before the time of letter-written history, must find its records amid the crumbling débris of former ages. It must bring to light the evidences of human activity and translate these evidences into written records. This must be done with exceeding care for all human sciences lead back to archeology and draw data from it.

2 THE ORIGIN OF MATERIAL CULTURE AND HUMAN PROGRESS

It is because man became a user of objects external to his own hands as tools that he has risen above beasts. But so long as man only employed the natural objects about him without changing their form he was only one step in advance, though that was a long one. It was when the first groups of men learned, by direction of their own will, through the guidance of their experiences, how to shape wood, bone and stone as tools and ornaments, that the second great step was taken, and the beast world was left behind

forever. Man became a fabricator and an artisan, and progress began. With tools in his hands he could make things, and when the making of these things was difficult or impossible with the tools he had, he used his tools to make other tools with which to produce the objects he desired. With the spread of the art of making things man became the master of the beasts about him.

The first tools were sharp fragments of stones broken by natural agencies. Experience taught that the harder the stone the sharper its edge, and finally some group of primitives through the handling of flinty rocks and nodules discovered how to chip them with other stones. With sharp flints, wood and bone could be cut and worked, and thus industry began. So clear is this fact that almost every process in the development of tools from the simple sharp chip to finished stone knives can be traced, and thence, to the use of copper and bronze, and so on until the present.

Thus the germ of civilization, of material culture and of all that flows from industry, began with the chipping of sharp bits of flint and quartz. With these sharp things man was able to change the world about him to suit his needs; no longer was he the creature of circumstance; he could now overcome all circumstances with which his inventions were designed to cope.

Early in his career man made a captive of fire; he had sticks with sharpened flints at the end — the spear; and he had chopping tools made of sharpened stones, which in later times he hafted; and he had clubs. Man became bold and fought wild beasts with confidence. Man had tamed fire; but the beasts feared it. The hearth fire frightened away the prowling carnivora and at the same time cooked the hunter's food; but of equal value, it conquered the darkness and warmed his woman and his children. Little wonder the wild races worshipped fire and its symbol in the sky. It was fire that helped awaken gratitude in the heart of man for the unseen powers and that aided him to pray.

Through the agency of flint and fire man walked out of his beastdom; he walked upright "and sought out many inventions."

Once in possession of these means of conquest little bands of human creatures began to wander from the primitive home. Their inventive proclivities developed with every hardship and every change of climate.

In almost every place upon the earth where mankind can exist, there will be found implements of chipped chalcedony, jasper, quartz or flint. To some extent the character of the stone guided the shape

of the implement made from it, but even so, chipped stone blades of knives, spears and arrows found anywhere in the world bear a marked resemblance. The flint spear of prehistoric France is like that of Arkansas; the knife blade from Belgium is like that of Quebec; and the arrow points of China resemble those of Egypt.

This general similarity of chipped implements has led to two divisions of opinion among archeologists. One contends that the branches of the primitive race spreading out over the earth, independently discovered the art of chipping flint and of making spears, and, finally that each evolved the bow and its flint tipped projectile. This school of opinion lays down the doctrine that the human mind universal is constituted in such a manner that its primitive impulses react in the same way when an identical stimulus is applied. In other words, it teaches that under identical circumstances human beings of like cultural stages of development, will do the same things. Thus, primitive wanderers lost from all others of their tribe, observing the action of a bent stick, might invent a bow and finally discover its usefulness when used in conjunction with an arrow. This use might take one or it might take five thousand generations to discover, but at length the discovery would be made, and from that point the tribe would advance to other discoveries.

The second school of archeological thought says that the great basic discoveries, as the use and control of fire, the art of shaping flints and the invention of the spear, were made while the race was as yet not greatly subdivided and while it inhabited a limited area. Familiar with these inventions, man spread over the surface of the globe. When new inventions such as the bow or the use of copper, were made by one division, this school teaches that the knowledge of each invention was transmitted to others by contact.

Thus the two forms of belief stand; one arguing that all divisions of humanity have like capacity to respond to similar needs by similar methods; and the other protesting that similar arts, inventions and practices are evidence of contact. Both forms of belief are plausible so far as they go, but each makes the error of laying down a fixed doctrine and raising barriers at its extremes.

As a matter of fact, and one that may be demonstrated by evidence, both beliefs are right and both are wrong, in certain particulars. Under certain circumstances some isolated divisions of human beings might invent flint knives with notched shoulders, and these notched knives might resemble those made by another division of

the race whom they had never seen. This is entirely within range of human capacity. Again, another band of primitives might live in a locality where food and security are so assured that it would never think of making flint knives until strange humans who made and used them showed it how. This again is a possibility.

The Patent Office records in Washington show that identical inventions are frequently submitted by inventors for patent rights. Often the same invention will be sent in by men living in widely separated parts of the country, at practically the same time. Neither man had heard of the other or had known that another mortal was working along the same lines. Even poems, sentences, snatches of music and systems of philosophy all quite identical, have been produced by persons unknown to one another.

If, then, simple things easy to devise, once known, remain unknown until some individual spreads the knowledge, and if identical complex things like designs, engines and poems are produced by different persons, unknown to one another, what shall we say of human capacity and resourcefulness? Consciousness of need begets invention, arousing consciousness of necessity. Then to upset any theory as to which takes precedence, accident produces consciousness of need as often as it supplies the invention.

It would therefore seem entirely within the range of possibility that many branches of the human family learned of devices and inventions by contact with other more advanced branches; and equally possible that certain discoveries, as that of chipping flint, might have been independently evolved.

In the opinion of the writer, the ancestors of the human race lived in some restricted geographical area until such a time as certain initial usages had become fixed parts of the pan-human material culture. These were the use of fire, the use of flint knives and spears, sharp pointed bones and hafted stone hatchets. With these things man was ready to travel afar and to cope with devouring beasts and hostile elements. To the roaming bands of proto-men who departed from the motherland before the primal inventions came, one of three things happened; they became exterminated through lack of means to cope with environment, they independently discovered the primal arts, or wandering back to offshoots of the parent stock that had made the primal discoveries, they learned to make and apply them.

Endowed by the primal inventions the race progenitors wandered from one continent to another, each separate division,

stimulated both by hereditary impulses as well as by its own reasoning from cause to effect, and induced to actions by new experiences, they invented identical things, because the identical needs of peoples similarly situated require identical forms of relief. The primal inventions made others possible because they provided new things that others might handle, might experience and might think about. A right combination occurred, and a new device was born. The same combinations of need, material, reason, incentive, impulse and action were quite likely to occur to several men. One man might make the discovery in South America ten thousand years later than another man who lived in a cave in the foothills of the French Pyrenees. Yet in time the need would have been met.

It is not surprising, therefore, to find the same types of implements the world over. The wonder is at the daring of primitive man, the spirit of adventure that caused him to wander over seas and deserts and to occupy every considerable body of land on the globe; that the man-animal could adapt himself to every form of climate, and with his few inventions could fasten himself to living conditions. It may easily be believed that the permanence of the biological characteristics making up the species *man*, is due to the early discovery of tools and weapons, exterior to his own person. As a permanent memorial of this belief, the chipped flints of all the various periods of cultural development remain. Man fixed himself as man when first of his own free will he chipped out an eolith.

If mankind enlightened ever desires to pay tribute to the handiwork of the race, and by monument or inscription gratefully to record its debt to the cause of its material progress, it may fittingly raise the eolith to view and say, "All that we know of art, science, invention and industry, and even the unity of the human family, we owe to the man or men who first flaked stone to points and edges."

3 THE ORIGIN AND DISTRIBUTION OF MAN IN NORTH AMERICA

Archeologists deduce the former presence of man in any given area by the discovery of human skeletal remains and by the finding of cultural artifacts, such as chipped flints. In Europe and in Asia these things have been found under such conditions as to point out a remote antiquity. The finding of chipped stone implements, mingled with the cracked bones of extinct animals in the caves of France and Belgium proved that man had lived in the period when

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than that man lived when these now extinct animals lived.
is a single lingering doubt, our minds become convinced
are shown the carvings of these extinct creatures on frag
bone and ivory. These carvings are the work of human h
many instances, too, the walls of the caves are painted wi
sentations of these ancient beasts. The location of these



Fig. 1 Magdalenian painting from the cave of Altamira

and the rock paintings make their preservation possible. I
been made in the open nearly every evidence would h
weathered away. Only by rare chance have any of th
deposits been preserved and discovered. Enough, howev
been examined by specialists, to demonstrate that Europe
of the homes of mankind while it was yet in its early infanc

In America no extensive evidences comparable to those o
have been found. While there have been several notable di
of supposed very ancient human remains in America, th
yet not evidence that any possess characteristics differing fr
of Indians today. No human remains found in Americ
approach the antiquity of European or of Asiatic discov
mankind found a footing in America at the age when the
Northern France were inhabited by the contemporaries of
toothed tiger and the hairy rhinoceros, we have not the
evidence of it. From a careful review of all the facts plac

anatomists, geologists and anthropologists, the general conclusion is that America was without human occupants at the time when the old world had a considerable population.[1]

Biologists take a similar stand in the conclusions they reach concerning the advent of man in America. They point out that there are no skeletal remains of the higher primates reported from either continent. From this they conclude that the proto-human ancestors of man did not develop in the new world, but that the *Hominidae* attained the human type in the old world, very likely southern Asia or the islands to the south.

The problem of the coming of man to America is thus placed before us for solution. This problem has occupied the attention of thinkers from the time America was found to be a distinct land area, and separated from the old world by vast expanses of water. Various theories have been devised, some ingenious, some utterly absurd. Writers have suggested that the peoples of the fabulous Atlantis populated America; others that the Indians are descendents of the Ten Lost tribes of Israel, or the survivors of a Welsh shipwreck. Still others, ignoring discoveries, have sought to make us believe that the original cradle of the human race was in America itself. Against these arbitrary theories we may set forth definite facts. There is no proof that Atlantis was a connecting continent or that it existed in the accepted sense; the ten "lost" tribes were not lost until a time when America had a considerable population; and the lost tribes were never actually lost but number their descendents in Asia today; a shipload of Welsh *men*, if such a shipload ever reached America, could never populate two continents, and for that matter, when Madoc was swallowed by the sea America was already occupied by men of a ruddy hue; and the belief that America was the primitive cradle has to complicate it the inquiry, why the old world then had so great a population that all the aboriginal inhabitants of the two Americas scarcely constitute a respectable fraction; also how they built transports large enough to cross the Pacific. If America was the primal cradle there would be enough to prove such a belief, but as we have indicated, geology, biology and anthropology all deny that any sufficient proofs have

[1] For detailed studies of the problem of man's antiquity in America, see the publications of George Grant McCurdy, the works of W. H. Holmes (e.g., Some Problems of the American Race; American Anthropologist, 12:2), and Ales Hrdlicka (Skeletal Remains Suggesting or Attributed to Early Man in North America; Bureau of Ethnology Bul. 33).

been submitted to this end. None of the ingenious attempts to show that there was a "Garden of Eden" here from which some Adam or some Noah went forth, would stand analysis. The new world, compared with the old world, so far as the age of man is affected, is a new world indeed.

In seeking to determine how America was populated we naturally examine the land approaches of the two hemispheres. The route from Asia over Bering strait seems to be and is the most plausible one. Here under ordinary conditions bands of primitive (the word being used in a relative sense) Asiatic tribes found their way from one continent to the other. At the time that migrations of sufficiently large numbers of human beings were a possibility in this direction, the human race must have attained a considerable cultural advance. It must have possessed language, fire, stone tools, weapons and warm clothing. If we assume that certain Asiatic groups did press northward and then eastward across the strait, we are compelled to account for the motives that impelled them. Why did they leave the warmer regions to the south? Certainly the routes of migration within the historic period have not been from the warm or the temperate regions to the inhospitable ice fields of the north. If man originated in tropical Asia it must have been a long time before any stream of humanity was pressed northward to escape the competition of others that were able to fasten themselves upon more favorable climes. Yet the possibility, and indeed the probability, that certain groups, either voluntarily or under compulsion, eventually found their way northward must be admitted. Man hunts for a food supply. The primitive food supply was drawn from the animal and the plant worlds. Desirable food was to be found only in limited quantities and, thus, when the population center in the southlands increased, wandering bands pressed out in ever widening circles that, as they were removed from the center, were deflected in streams. There were natural barriers, and there were human enemies struggling to lay hold of food areas. Man's social nature drew groups of men together and group consciousness was ever present in the individual. The man of one group to the man of another was an enemy who was liable to steal his women, to appropriate his shelter beneath the rocks, and worst of all, to come with other out-group enemies to appropriate the hunting ground or the region where edible herbs, roots and berries grew. As the north was approached competition grew keener. With these wanderings in search of feeding grounds the migratory spirit was developed.

Groups pressed upon one another from all sides. Group consciousness developed the feeling of group superiority. Groups not allied in any way believed that they had a right to kill off all other groups. Thus came the triple struggle for food, for an endurable climate and for safety from other predatory groups. As the colder regions to the north were approached there must have been an increasing resistance to the intrusions of other north and east pressing groups.

At each long stage of the northward journey great changes would take place in the life of the group. There would be new foods to find and to eat, new animals to deal with, new climatic conditions to overcome. These things would modify customs and even language itself. But the possession of flints and the mastery of fire remained. Eventually the region about the northeast coast would be reached, the coast would be explored. The food would be fish, seals, sea bird eggs, and arctic mammals. Vegetable food would be practically unknown. Clothing would be of the skins of bears, seals, reindeer and other arctic animals. There were canoes of skin in which for short distances the venturesome went out to sea or journeyed along the coast.

At some period in the history of these boreal groups would come a knowledge of more land beyond, to the farther east. This knowledge was the beginning of the migrations of small bands. There may have been a long period of passing and repassing, before attempts were made to push farther south in the new land across the strait. It may be that the hunting grounds there were immeasurably better, that there was some better food supply, or that once the mysterious region became generally known there was an impulse to go to it. Then, again there would be a pressure of tribe and group pressing the vanguards. The smaller number would always be in advance; the greater number behind, to drive the venturous before them.

In presenting a hypothesis of this kind, it is well to remember that the first groups of men moving from a common center toward an inhospitable climate resisted as best they could every attempt to force them into what they considered an undesirable region. If they were unable to crush their foes they might attempt to escape to the west or again back to the south. Without doubt the great avenue of migration was to the west. Not until the population halted and pressed both eastward and westward would there be a progression northward, into the subarctic north. We must also believe that very many groups perished long before they were driven into north-

eastern Asia. Of even greater importance must be the understanding that the journey from the hypothetical race cradle in the south was not a deliberate journey made by one single tribe. The movements of groups to the north were by slow stages, and in entering each new northward area, the different requirements for meeting the new environment would cause a considerable change in the customs and the material culture of the group. The group that reached rigorous north would have no tradition that its remote ancestors to the south, thousands of years before, lived from the fruits of the trees and vines. It would only know that every attempt to reach the south was resisted by fighting men. In time, therefore, the group would become accustomed to its environment and believe itself the most favored of all. Then, as stronger and more southern or western bands pressed upon it, it would again give way and escape to the farther north.

By a theory similar to this anthropologists, taking full account of all that geological science says concerning the subject, point out the probable route of man into America. The subsequent distribution of the various bands of mankind throughout the continent is another question, perhaps easier to deal with, but yet fraught with many difficulties.

The wide distribution of the aboriginal American race and its fairly uniform physical characteristics indicate its essential uniformity. It is one race. The difference between the American race and the nearest true Asiatics also has much significance. The American race has developed as such in America though it took root in Asia. No longer is it Asiatic so far as trunk and branch are affected. The only possible vestiges may be the intensification of the pigmentation of the skin, giving the red-brown hue, and certain mental traits. None of the American languages is like the Asiatic, except remotely, as any language might be.

The ancient period when the distribution of the race was complete, from the icy northlands of Alaska through the Central and South American tropics to the bleak snow-covered tundras of Patagonia, was one far back in point of time, and, it may be, followed the subsidence of the last glaciation in the north. Again there must have been cradle lands in which, affected by food, climate and the changed surroundings, the descendents of the wanderers from Asia developed distinct racial traits, both mental and physical. With the increase of the populations there would be another spreading, the currents being deflected by mountain ranges, great bodies of water,

arid regions and other factors. But the distribution would take place, following lines of least resistance.

The natural course of migration would be southward along the coast of Alaska and British Columbia. Food would become more abundant as the more southern climes were approached. The entire Pacific coast has been a cradle land of various linguistic stocks of the continent and the seat of many complex cultures. There many different stocks lived, learning from experience the necessity of establishing rules for fishing, hunting and gathering nut and root foods. The Pacific coast area is narrow and hemmed in the tribes between the mountains and the ocean. The population was relatively congested. In time some of the most highly distinctive culture traits and specialized forms of carving and decoration developed in this area.

West of the Sierra Nevadas another condition is to be noted. Instead of congestion there is a wide sweeping distribution of linguistic stocks. The entire interior of Alaska and of western Canada was held by the various divisions of the Athapascan stock. Once it may have occupied the coast and later lost it to the Eskimo. But observation indicates that the Athapascan stock held the coast only about Cook inlet. Even Hudson's Bay became shut to them when the Eskimo intruded. Southward the Athapascans pushed down the Rocky mountain foothills and occupied some of the most arid and most inhospitable regions of what we now know as New Mexico, Arizona, western Texas and Chihuahua. In a few isolated spots they found small tracts along the Pacific in Oregon and northern California. Several interesting observations may be made upon the Athapascan stock. It occupied the least desired lands — the bleak rigorous north and the arid, sun blistered deserts of the south, always shut away from the coasts. In the north its culture was limited, in the south it was far more complex, as a survey of the Navaho and Apache divisions of this stock will demonstrate. The entire stock is peace loving, most industrious, fits itself to its several occupational areas and quickly assimilates the culture of any superior tribe or stock surrounding it.

While the Athapascan stock swept from the north to the south, the great Algonkian stock spread out like a triangular fan, from the Rockies to the interior of all Labrador and to the New England coast. Holding back the Eskimo and the northern Athapascans on the north it held the southwestern shores of Hudson's Bay, most of the region north of the Great Lakes, and spread down the

Atlantic coast. On the west side it occupied most of the Mississippi valley from the source to the mouth of the Ohio, being checked there by the Siouan stock, and a little eastward in Tennessee by the Muskhogean.

West of the Algonkian stock and held like an island between other stocks, including the Cheyenne-Arapahoe tribes of Algonkian blood, were the tribes of the Sioux, extending from eastern Assiniboia southward into southern Arkansas. The area resembles a large headed, short winged, large tailed bird flying with its short, blunt bill, to the north-northwest. Its head and shoulders press into the Algonkian area, its right wing pushes into Minnesota and northern Iowa, and its clipped left wing between two Algonkian divisions to the west, and into the area of the great Shoshonean stock. Oddly enough in the very middle of its back along the boundaries of North and South Dakota there rests an isolated band of the Caddoan stock, but the Caddoes also push into the thunder bird from the west and nearly sever the tail, through the base of which the Missouri flows (between Iowa and Nebraska).

The Shoshonean stock occupied the Rocky mountain region, pushed across to the Sierras and thence southward into California, where in the southern end it held a strip of sea coast. A long projection pushes southward through southwestern Wyoming, all of Utah, Nevada and the western half of Colorado, into northeastern New Mexico and northwestern Texas. Still southward other traces of this stock are found until we learn from a number of authorities that the Shoshoni are related to a greater division known as the Uto-Aztekan family, which of course includes the Aztec or Nahuatl people. Thus the Shoshoni, the Paiute, the Bannock, the Comanche and the Hopi are but northern kinsmen of the Aztecs.

The Caddoan stock, we have mentioned. Its most northern location is along the borders of North and South Dakota. Pushing across the prairies we find in southern Nebraska another and larger group, then southward among the Kiowa several small groups, perhaps later comers from the north. South of the Kiowan stock between the Shoshonean stock on the west, the Muskhogean on the east and the Siouan to the north is the third and largest division of the Caddo people, while south and east of them are several small stocks, the Natchesan, Tonican, Attacapan and Chittemachan.

While the Muskhogean stock was east of the Caddo, these small barrier stocks above mentioned actually occupied a small strip, preventing close contact. The Muskhogean people were dwellers of

II

THE ABORIGINAL OCCUPATION OF NEW YORK

1 PHYSIOGRAPHIC FEATURES INVITING OCCUPATION

The area embraced by the State of New York seems always to have been designed as a great natural empire. Its geographical position, its physical features and its natural resources have from early times been favorable and inviting to human occupation. Perhaps no other area upon the continent presents such variations in type of landscape. The soil in its different forms affords the growing bed for numerous types of vegetation, especially food plants, and the great valleys and alluvial plains are covered by heavy deposits of fertile soil, easily cultivated and capable of sustaining immense fields of vegetables and grain.

To a large extent the superiority of this region is due to the Great Lakes to the north, to the smaller interior lakes and to the numerous river systems that are fed by a vast number of secondary streams and tributaries. A large number of the streams are navigable by canoe to their very headwaters. Because of this fact it was possible for the early Indians to travel from one drainage system to another by means of short carrys. The Hudson from its source affords access to a considerable area. Over the divide near Fort Edward, the Champlain drainage system could be reached. There were two general routes, one that touched Lake George and the other Lake Champlain. These points from remote times were of strategic importance. During colonial days these portages were well fortified by Fort Edward at the point of debarkation on the Hudson, by Fort Ann on Wood creek (the direct Champlain route), and by Fort William Henry at the southern point of Lake George. The Hudson-Champlain portage was 11 miles in length.

Westward along the Mohawk there was an all-water route to the Oneida portage near the present site of the city of Rome. A carry of 8 miles here brought the waters of the Finger Lakes drainage basin within range of the boatsman. Here on the divide the colonists erected Fort Stanwix to guard the route. Through Wood creek and Oneida lake all the central New York lakes could easily be reached. The Genesee country was tapped either through Irondequoit bay and the mouth of the Genesee or through tributaries of its lower

tribes that had built up their material culture during long periods of peace. Indeed, also, these peace-loving peoples, having larger stores of pelts, corn, dried food, utensils and other valuable movable property, were subject to raids by other more predatory tribes. The more peaceful and sedentary tribes, therefore, built fortifications and stockades, some of them of considerable dimensions. Probably the greatest wars of which we have any means of knowing were those in which the mound-building peoples were reduced and expelled from their country between the Ohio and the Mississippi. A later war of importance was that of the Huron–Iroquois, in which they pushed aside the Algonkian tribes and established themselves in the areas where they were found at the opening of the historic era. Wars of this kind did occur in ancient times, but it is to be doubted that the loss by killing was ever very heavy, except in rare instances. Like the European, however, the Indian was war-loving, but the Indian was equally fond of great councils in which matters of dispute were peacefully settled.

Stock and tribes thus pushed out as their needs and impulses dictated. The country was vast and there was room for many, but when the hunting grounds were depleted and food became scarce, each group, and indeed each individual, fought first for individual survival. In a measure, therefore, the tribes that developed a form of social organization suited to its environment survived. How these tribes and stocks were distributed at the opening of the colonial period we have already outlined.

In any consideration of the displacement of tribes and stocks we must give weight to the possibilities of migrations due to the encroachments of wild animals. It is quite possible that the buffalo herds or other ruminants invaded the mound-builder territory and made agriculture so precarious that it was necessary to press farther south and east. In so doing there would be an intrusion of the Muskhogean and Algonkian area and subsequent wars for readjustment.

teemed with fish and the forests were filled with pigeons, partridges and squirrels. The red man had only to use his arrows and snares skilfully to supply all his needs for food. From the barks of trees, as the elm and basswood, ropes and cords could be made; the bark of the elm supplied material for houses, canoes and numerous utensils for the household. There were many sweet herbs like the sassafrass, and valuable medical plants like boneset and golden seal. Beside the native plants certain vegetables were cultivated, such as maize, varieties of beans, squashes and tobacco. The summer time supplied many kinds of berries and small fruits; the autumn the cultivated plants and many kinds of nuts and seeds. By carefully preserving and drying both animal and vegetable foods, therefore, it was possible for human beings to subsist in the forests with a large degree of comfort, and at the same time to find game for animal food in case stored supplies fell short.

This area, as we have suggested, teemed with animal life. Passenger pigeons moved in mighty flocks that, according to early settlers, "flew like clouds and darkened the sun, and when they alighted broke down the branches of trees beneath their weight." The ruffed grouse, wild turkeys, a score of species of wild ducks and geese bred here or had their range over this territory. There were large numbers of bears, wolves, beaver, panthers and other large forest animals and many other varieties of four-footed creatures that were valuable for their furs. The lakes were filled with fishes and eels; in the salt water country clams and oysters were abundant. But the most valuable of all game, to the Indians, were the herds of elk, deer, moose and bison that lived and roamed in the open lands and in the timbered areas. These were the big game. To the big game the Indians, and later the early white settler, owed much. They supplied the bulk of the meat supply and their skins when tanned served for leather and clothing. Very few textile garments could be better suited for the forest dweller, either for warmth or durability, than those of elk or buckskin. Skin robes, as those of the bison, furnished warm bedding.

The big game animals bestowed upon man another important gift, and one seldom considered. In their seasonal migrations they tracked into the earth deeply worn paths. These trails up the Ohio, along the Allegheny and up the Genesee or cross country at well-chosen spots became the trails of the red men also, and we may easily believe that the Indians followed them in reaching the territories that they came to occupy. The reason is easy to find. The animals first

found the lands that would provide them with food, water and salt. Man wanted the animals for food and followed their trails, found the country without human occupants and took possession.

New York State lies in a portion of the thermal belt surrounding the globe that supports the most energetic peoples of the world. This may be due to the reaction of the wide variations between summer and winter temperatures upon the physical constitutions of the occupants. In winter there are portions of New York as cold as portions of Alaska or Labrador; in summer the temperature equals that of the Mediterranean countries and even northern Africa. Coincident with the existence of human energy is intellectual activity in this isothermal belt. What is true today of the white races occupying this zone was also true in aboriginal times. The Indians of this region at the time of the discovery were the most able mentally in all North America. Not only did they possess keen minds but they were able in many ways to match with the white invaders. This has so far been true that today New York State has within its borders more than six thousand Indians, most of them branches of the Iroquois, and living on tracts of land that they have held from very early time. Notwithstanding the severe temperature of winter here, many of the Indians of this area wore what would now be considered scanty clothing and frequently parts of their bodies were bared to the elements. One Jesuit father living among the Mohawk people states that he saw one warrior braving a storm with the upper part of his body bare and only protected by a wild cat skin through which he had thrust his arm, holding it on the windward side. The bark houses, likewise, were cold and unheated in winter, save for the floor fires that were used for cooking rather than for heat. Instead of discouraging settlement by human beings the cold winters had the contrary effect, for to acclimated individuals and groups there was a certain zest in battling with the cold, not enjoyed by the people farther south. The summers and autumns were warm, on the other hand, and provided for the food that was most sustaining to life.

The coming of the white settlers did much to modify the landscape. The first colonists, however, relied upon the same natural resources as did the Indians, using native plants and forest game for food, and wearing buckskin and furs when they did not have cloth in abundance. The colonists, coming from Europe and from another cultural horizon, understood certain facts that the native Indians did not and soon made use of these facts to enlarge their resources.

The whites had iron, copper and tin; they had glass, certain chemicals, and many manufactured articles, strange to the aborigines. But the greatest possessions of the colonists were not these things, unless we except iron; their most valuable assets were three animals — the sheep, the cow and the horse — animals not found indigenously upon the American continents.

The sheep provided durable fabric as well as food, the cow gave milk, valuable fats and furnished one of the most edible of meat staples, and the horse was an animal able to carry or draw heavy loads with greater swiftness than human beings. Speed of transportation, ability to haul raw and manufactured goods was thus placed within range of the white man. The horse promoted both industry and exploration and thus became a valuable energizing factor promoting invention and political progress. The cow, sheep, pig and domestic fowl, together with the horse, stimulated agriculture, provided the means of wealth, constituted personal property, and furnished an incentive to peaceful interchange of commodities. All these things were natural advantages or the immediate outgrowths of them, that gave the colonist great superiority over the native red man.

The white man finding this region suitable for his herds, flocks and horses, took possession of the land and held it by means of his superior tools, and his ability to transform the raw materials of the forest and the earth. With the passage of time and the continued application of labor this area has become the Empire State of a great Nation. Though one of the small states in acreage it has attracted to itself one-tenth of the population of the country and become the most flourishing agricultural, industrial and financial center.

The white man is here for the same reason that the Indian was here in former days; because of the natural physical advantages of the land. From the days of its first discovery by wandering red men until now it has afforded a homeland for all people who chose to avail themselves of its advantages.

2 THE FIELD OF ARCHEOLOGY IN NEW YORK

New York State presents an inviting field for archeological investigation. It is not the most prolific field, to be sure, but among the many areas where specific problems may be studied our field has at least an important place. In Ohio the mound culture may be studied with great advantage, in Tennessee the stone grave culture

may best be examined, but in New York State the prehistory of the Iroquois may be studied with greater advantage than in any other region we now know, not even excepting the province of Ontario.

The Iroquois were and are still the most recent aborigines to occupy this region; but they are late comers. Before them were other peoples. Our investigations show that long before the Iroquois came, the Algonkian tribes occupied at various times almost every portion of the State. There were also bands of the mound-building people, and at an earlier time, wandering tribes of people who made implements like the Eskimo.

Sources of Information

In making a systematic examination of the field, information may be expected in certain definite areas and particular places. We must go where the evidences are in order to discover our data. In pursuing investigations and in making records, the following sources should always be kept in mind:

I General areas
- 1 Inhabited areas
  - *a* Village sites
  - *b* Camp sites
  - *c* Shell heaps
  - *d* Hunting grounds
- 2 Defensive works
  - *a* Fort rings
  - *b* Fort hills or points
- 3 Places of industry
  - *a* Workshop sites
  - *b* Quarries
  - *c* Garden beds
  - *d* Fishing places
- 4 Places for disposing of the dead
  - *a* Cemeteries or burial grounds
  - *b* Ossuaries
- 5 Places of conflict
  - *a* Battlefields
- 6 Routes of traffic and travel
  - *a* Trails
  - *b* Stream beds
  - *c* Fording places

7 Occasional or rare places
- *a* River gravels
- *b* Drift deposits
- *c* Swamps
- *d* River and lake bottoms
- *e* River and lake shores
- *f* Ceremonial districts and areas

II Particular places

1 Sites of dwellings
- *a* Lodge sites
- *b* Caves and rock shelters

2 Refuse deposits
- *a* Fire pits
- *b* Refuse pits
- *c* Refuse heaps
- *d* Shell heaps
- *e* Signal light ash deposits

3 Monuments
- *a* Mounds
- *b* Cairns
- *c* Inscribed rocks
- *d* Council rocks

4 Burials
- *a* Graves
- *b* Ossuaries

5 Places of industry
- *a* Kilns
- *b* Individual work shops
- *c* Fish weirs
- *d* Clay pits

6 Places for storing or hiding things
- *a* Caches of implements finished, general
- *b* Caches of raw material, general
- *c* Individual caches

7 Ceremonial places
- *a* Springs
- *b* Spots
- *c* Rocks

3 PROBLEMS IN NEW YORK ARCHEOLOGY

While great strides have been made in the study of the archeology of this geographical area, there are yet many problems to engage our attention, things to do in the way of excavation and research before we may know even a portion of what we should know about the activities and cultural conditions of the aborigines. In order that we may study with purpose and pursue our field work with intelligence, we ought to bear in mind constantly what the problems are.

1 Our first problem is to determine what people or peoples lived in this area, and what aboriginal tribes lived in it when the country was first invaded by white men. It is not enough to make a general guess, for there may have been isolated tracts held by several tribes, some of different stocks, instead of the generally known tribe mentioned in history and popular recital.

2 From what locality or region did each tribe and stock come? What direction did they take to reach this region? What did they bring with them that was distinctive?

3 Whom did they find, and did they drive out or exterminate the older occupants? Did they amalgamate with them?

4 At what date approximately did each people arrive, and for how long a time did they occupy the region?

5 What precise sites did each people occupy? What area did they cover?

6 Where are the oldest sites of each culture, where are the intermediate and where the most recent?

7 What are the characteristics of the village, camp and burial sites of each culture?

8 What are the characteristic implements of each and what are correlated?

9 Determine what each implement was used for, if possible, but do not guess. Experiment and try the implement in the several ways that suggest themselves to you, but unless you are positive, do not give a *use-name* to an implement. Until you know the use of an object, give it a descriptive name.

10 To what extent was each culture modified as time went on? Illustrate the modification.

11 What tribes of the same or other stocks surrounded them?

12 Whom do they seem to have influenced culturally?

13 By whom do they seem to have been influenced?

14 What are the salient features of each culture?

15 What finally became of each occupying tribe?

16 If living today, what do they yet retain of their native material culture, customs and language?

17 What are the physical characteristics of each occupying people? What are the skull indices, skeletal measurements?

18 How do the implements, pottery, ornaments etc. of each culture seem to have been made?

19 What documents exist describing the tribes that lived here when the country was first opened? How much may be learned from these documents and books concerning the material culture and customs of these people?

20 What persons have made collections of specimens from the various sites of aboriginal occupation, and in what condition are these collections?

Questions like these might be multiplied, but these will suffice. Others will quickly suggest themselves, according to the subject upon which light is sought.

III

EVIDENCES OF VARIOUS OCCUPATIONS

As suitable as the New York region is and in former times was for human occupancy, there is little evidence that there were any human beings here in very remote times. So far, no one has produced satisfactory proofs of man's presence during the glacial periods. We have never known of any implements from this State that may be known as paleoliths, as these things are known in Europe and elsewhere. The rock shelters and caves examined up to this time, while yielding some rude flints, do not indicate any remarkable antiquity.

We do not wish to imply that man was not here or to lay stress upon a mere theory of his recent appearance. What we do wish to state is that up to this time competent observers have not seen in the ancient gravel deposits or in the glacial till any articles that look as if indubitably made or used by human hands. It may be that some time such evidences will be found and that man in this region will be shown to have lived here during and immediately after the last glacial period. We have no sympathy with a dogmatic theory that would seek to limit in an arbitrary way the time of man's first appearance upon the earth. Man certainly was on earth fifty thousand years ago; he may have an antiquity of five hundred thousand or more than a million years, if the evidence presented by the geologists is conclusive. Our contention is that man left no traces here by which we may know of his occupation in the immediate postglacial times. Where upon this continent he was, we do not know. It is apparently true that certain Asiatic tribes in the periods following the last glaciation found their way over Bering strait and dividing and subdividing became the parent stems that later developed into the great linguistic families of the two continents. The first groups we should expect would push southward along the Pacific coast with comparative rapidity. The slower pressure would be from west to east.

Indeed all the rest of North America north of Mexico had a population in aboriginal times scarcely equal to that of the Pacific coast states. The densest Indian population followed the west coast south through the desert lands of New Mexico and Arizona into Central Mexico, Yucatan and Central America.

The pressure sent more into South America. Time, climate and food and, of equal if not primary importance, the original race color and mental impulses caused these scattered units of the race to develop along similar physical lines. But while we think of the similarity of the branches of the red race we ought not expect them to be any more similar than the various branches of the Aryan or white race.

It is quite probable that many parts of North and South America had long been settled and that there were several millions of the red race before any large number of them crossed the Rocky mountains and the great plains to begin a migration by slow stages to the Atlantic coast. The earliest comers seem to have had no habits that wrote a record into the soil. Perhaps they were nomadic and had no settlements that endured longer than a year.

The oldest evidences of man's presence seem to be on some of the upper terraces. In western New York we have found several strange sites where the artifacts were crude and all osseous matter completely absent. The presence of carbonized material in the pits, however, proved that fire had been used. Along the headwaters of the Hudson similar old sites have been found. It would be mere guessing to say how old these places are or even that they are demonstrably the oldest.

As occupation becomes more evident, through the relics one finds, it is patent that the occupation is more recent. Thus, we may trace the historic Algonkian people by their artifacts to their prehistoric sites of occupation and these back to very rude sites that fade into others that may or may not be Algonkian.

On some of the sites that may be considered old the relics are greatly weathered. Certain sites near Oneida lake and others on the upper waters of the Hudson yield many crude flints and hatchet heads of stone that have plainly been weathered for centuries. But even in this case we can only say the relics appear to be among the oldest.

To the writer the first definite occupation seems to have been by a people influenced by the Eskimo. They may have been Eskimoan, they may have been Algonkian tribes intermarried with the Eskimo, or they may have been Algonkian tribes culturally influenced by the Eskimo. The Algonkian people at length came to possess most of this area and in almost every portion of the State one may find Algonkian artifacts. For a considerable period wave after wave of Algonkian tribes came this way, one of the last being the Delaware.

The Algonkian stock at length spread from the Rocky mountains between the 55th parallel to the Atlantic coast, and occupied an irregular territory as far south as the 35th, even pushing wedges above and below these points. Their east and west range, measured in longitude, spread from the 55th parallel to the 118th parallel, giving them a palmate shaped region many times greater in extent than that occupied by any other linguistic stock in North America.

The great original stocks of this period seem to have been the Athapascan, Shoshonean, Siouan, Algonkian and the Muskhogean, Caddoan and Iroquoian. It may be that the last three stocks were originally one. There were fifty other linguistic stocks, according to Powell, north of Mexico. Time and research may condense these to ten.

After the Algonkian people had established themselves along the Atlantic coast and the country back of it, some of the mound-building tribes of the Ohio region pushed into New York, and thereafter followed several waves of the Iroquois.

The Algonkian tribes left traces, especially along the coast, but within the State their traces, while distinguishable, are feeble; the mound-building people did not occupy so much of this region but where they did leave any evidence of themselves it is startlingly plain to the archeologist, but the Iroquois who came last and who lived here for the shortest period of all, have left such abundant traces, such thick refuse deposits, and so many relics of their material culture that they appear to have not only lived on the land but to have actually used it. In viewing the remains of their occupation no anthropologist would make a mistaken estimate of their mental or moral energy.

Many untrained observers have sought to identify archeological specimens found in a given locality as the products of the tribe that last lived in the locality, perhaps in historic times. In view of the several occupations we have mentioned it will be seen how mistaken this notion may be in some cases. In certain places, such as the Genesee valley, there may be as many as four types of occupation. Thus it would be highly erroneous to say that the Seneca were responsible for all the relics found. Amateur collectors must avoid such erroneous conclusions, though even certain advanced students have made them through lack of means fully to identify cultures.

It would be presumption to say that we have named all the peoples that have lived within the borders of our present Empire State. It is possible that some other tribe contemporaneous with the early

Algonkian peoples lived here, also, and that they were similar to the "red paint," people best represented in certain Maine sites. It is possible that some of the eastern Sioux have left traces here; it is possible that Muskhogean bands came up the Susquehanna and roamed the State. It is possible that several or many stocks now unknown and perhaps impossible to know left traces behind. Certainly there are many sites that are puzzling and that suggest an occupation by people the nature of which we now have no means of determining.

1 THE RELATIVE FREQUENCY OF ARTIFACTS

In describing the cultural intensity of a single site, of a cultural horizon or of a large geographical area, it is useful to know how frequently certain types of artifacts occur. Relative terms have been used with great carelessness, so much so that records to a large extent are unreliable. Thus, we may never be quite sure what is meant by the term *rare,* because different persons may not have the same idea of what rarity means. The same is true of such terms as *common* or *abundant.* One observer may say that six bone combs from a site mean that they are common; another may construe this number to mean rarity. A single observer basing his estimates upon different standards, or even upon impulse, may use different comparative terms at different times, making his statements contradictory.

These loose methods of estimating are to be deplored, for they delay the emergence of archeology into a statistical science. To a large extent, also, our knowledge of the relative number of objects prevailing on sites is made difficult by the fact that collectors have seldom gathered every specimen showing the handiwork of the aborigine. Only a few observers not on museum staffs have had the forethought to do this. On the other hand, all archeologists employed for field research in New York by reputable institutions, since 1900 have been careful to collect every object, from flint chip to pottery vessel, not neglecting any complete or incomplete object of whatever nature. For this reason the expeditions of the American Museum of Natural History, the Peabody Museum of Archeology and Ethnology, the New York State Museum, the Museum of the American Indian and the Buffalo Society of Natural Sciences may be relied upon. To the lasting credit of some private collectors this course has also been pursued.

Comparative lists are valuable in that they show not only what implements were used most or least, but also what new forms arose, what changes occurred and what forms became obsolete. These are

valuable facts in the study of cultural stages, and enable us to trace and perhaps identify the factors influencing cultural growth, transformation or decadence. Lists are not difficult to tabulate if a complete collection has been made, or if a good catalog record has been kept. It is when we begin to estimate the relative frequency of material that errors are most likely to occur. This is because no system has been generally agreed upon by archeologists and collectors.

In considering methods of comparison, we find that there is one general form that may be used with advantage, for statistical information and for ascertaining percentages.

By this we enumerate all classes of articles from a site or region, and divide the total by the number of thousands or fraction of thousands. Thus we obtain a factor for determining the number of given objects that occur in a thousand of all kinds. We also do two other things: (*a*) provide the means of estimating the probabilities of finding other similar objects; (*b*) provide the means for describing the relative frequency of the article. Thus, if among 2500 artifacts found in a site there are 15 bone fishhooks, we may divide 15 by 2.5 (the number of thousands) and as a result determine that 6 fishhooks occur to every 1000 specimens found. Thus we may state that .6 per cent of all articles collected are fishhooks. On the other hand, among the 2500 specimens there may be 250 hammerstones of all classes. This would give hammerstones a frequency of 10 per cent.

As an example of how to lay out a specific site frequency table let us take a certain number of representative articles from the Richmond Mills site, where about 2500 specimens are enumerated in the census made by Mr Dewey.

OBJECT	NUMBER FOUND	PERCENTAGE	NOTE
Triangular arrow points...	1 187	47.5	Comparisons based on 2500 objects enumerated from Richmond Mills. Prehistoric Iroquoian, probably Seneca.
Notched points.....	8	.32	
Celts.....	40	1.6	
Hammerstones.....	365	14.6	
Bone beads.....	700	28.0	
Bone draw shaves.....	10	.4	

By this means we can name an article by its specific cultural frequency and state it as 1 or 10 per cent as the facts bring out, and arbitrary terms need not be used.

So far, the artifacts of a single culture have been considered. In larger areas where there is a mixture of cultures a second plan will be to determine the relative number of artifacts found on (*A*) Algonkian sites, (*M*) mound builder sites, (*I*) Iroquois sites, (*E*) Eskimoan sites, (*U*) indeterminate sites. For the purposes of this paper we will grant that most of the articles considered are all from known sites, or that they may otherwise be identified.

Again everything is counted this time without regard to cultural origin. All specimens are massed together in one grand aggregate and then sifted for their cultural place. In a collection of 20,000 specimens[1] we should expect to find the articles falling into groups in the following way:

ARTICLE	ALGONKIAN	IROQUOIS	MOUND	ESKIMOAN	UNDETERMINED	TOTAL
Hammerstones	1 000	1 000	100	10	40	2 150
Anvils	100	75	20	5	25	225
Mullers	50	50	5	.....	5	110
Celts	100	150	15	2	23	290
Gouges	50	.....	5	3	25	83
Adzes	60	5	20	5	10	100
Grooved axes	20	.....	2	.....	.....	22
Grooved weights	100	20	5	5	10	140
Net sinkers	800	750	25	20	5	1 600
Sinew stones	14	.....	1	1	1	17
Bannerstones	20	.....	15	.....	.....	35
Bird stones	15	.....	5	.....	.....	20
Gorgets	35	.....	15	.....	.....	50
Plummets	.....	.....	.....	.....	5	5
Other ceremonials	10	.....	5	5	5	25
Stone pipes	10	25	10	.....	5	50
Bone implements	200	1 000	50	50	.....	1 300
Shell beads	50	2 000	50	.....	.....	2 100
Stone tubes	1	.....	2	.....	5	8
Notched flints	5 000	50	1 000	150	800	17 000
Triangular flints	200	2 000	50	.....	50	2 300
Pottery vessels	1	20	1	.....	.....	22
Steatite vessels	2	.....	.....	.....	.....	2
Copper articles	25	.....	5	1	.....	31
Pestles	100	2	2	.....	1	105
Other articles	800	1 000	200	10	200	2 210
	8 763	8 147	1 608	267	1 215	20 000

From a table of this kind we may estimate the degree of cultural wealth, the duration of occupation, the presence or absence of certain

[1] This tabulation is based on a careful estimate of artifacts from the heart of New York State extending from Oneida lake to the Genesee. A tabulation of the entire State or for other areas in the State would change these figures.

articles, and thus establish other tables defining culture traits. By this means, also, we may find a convenient method of stating the degree of rarity or frequency of any articles. Remembering that we have analyzed 20,000 specimens of all kinds, we can easily determine the percentage of the whole number or of the cultural number. Thus, we find that to determine the *cultural frequency* of hammerstones we divide the number by the total number of all objects of the culture enumerated and obtain these percentages:

Hammerstones
Culture frequency } *A* 11.4; *I* 12.27; *M* 6.21

When hammerstones as type objects are compared with all hammerstones we get another figure, that of type frequency; in other words we are able to say what percentage of hammerstones selected from a large series gathered from representative sites of all cultures, may be expected to be of any one culture. Compared with the grand total we would then read:

Hammerstones
Class frequency } *A* 46.5; *I* 46.5; *M* 4.65; *E*. 465; *U* 1.86

There is considerable difference between the general frequency of a specimen and the cultural frequency and if such tables as these are ever used care must be taken to mention the standard of comparison whether *general, cultural, specific site* or *class.* Comparing our tables we see that Iroquois hammerstones, for example, have a *general frequency* of 5, a *cultural frequency* of 11.4 and in the site named a *specific frequency* of 14.5, while the *class frequency is* 46.5.

General frequency, therefore, may not be regarded as a guide to specific frequency. As an example, the general frequency of hammerstones of the mound culture is .5 per cent. Compared with all objects from a specific mound site in New York, the percentage would probably rise to 6.25 or even more.

To clarify our comparisons by percentages let us recapitulate our hammerstone data.

1 Out of 20,000 specimens of all kinds, 2150 are hammerstones. Hammerstones therefore form 10.7 per cent of all articles found. This is the *type frequency.*

2 But these hammerstones came from various sites and we are able to sort out *A* 1000, *I* 1000, *M* 100, *E* 10, *U* 40, which gives us the means for determining the fraction of all specimens in our collection that each culture takes. Our 1000 Algonkian hammerstones are one-

twentieth of the whole 20,000 specimens. It is therefore 5 per cent of the total. Continuing we find that the *general frequency* is: *A* 5; *I* 5; *M* .5; *E* .05; *U* .2. This gives us a means of indicating the comparative rarity or frequency of any specimen.

3 We may wish to know how frequent a specimen is in a certain cultural area; that is, what per cent of all articles from a culture, a given class of object forms. We have only to determine that 8763 specimens in the 20,000 are Algonkian and by taking our 1000 hammerstones find our decimal number, which is 10.35. Going through the list we find the cultural frequency to be: *A* 11.4, *I* 12.27, *M* 6.21, *E* .04, *U* .033.

4 By taking the number of hammerstones from each culture and comparing them with all the hammerstones found in our collection, we get our *class frequency* which, to repeat, is: *A* 46.5, *I* 46.5, *M* 4.65, *E*. 465, *U* 1.86.

5 By totaling all the specimens of all kinds from one specific site, and finding out how many of each kind compose this total, we can determine what percentage of the total any group forms. This is the *specific frequency*.

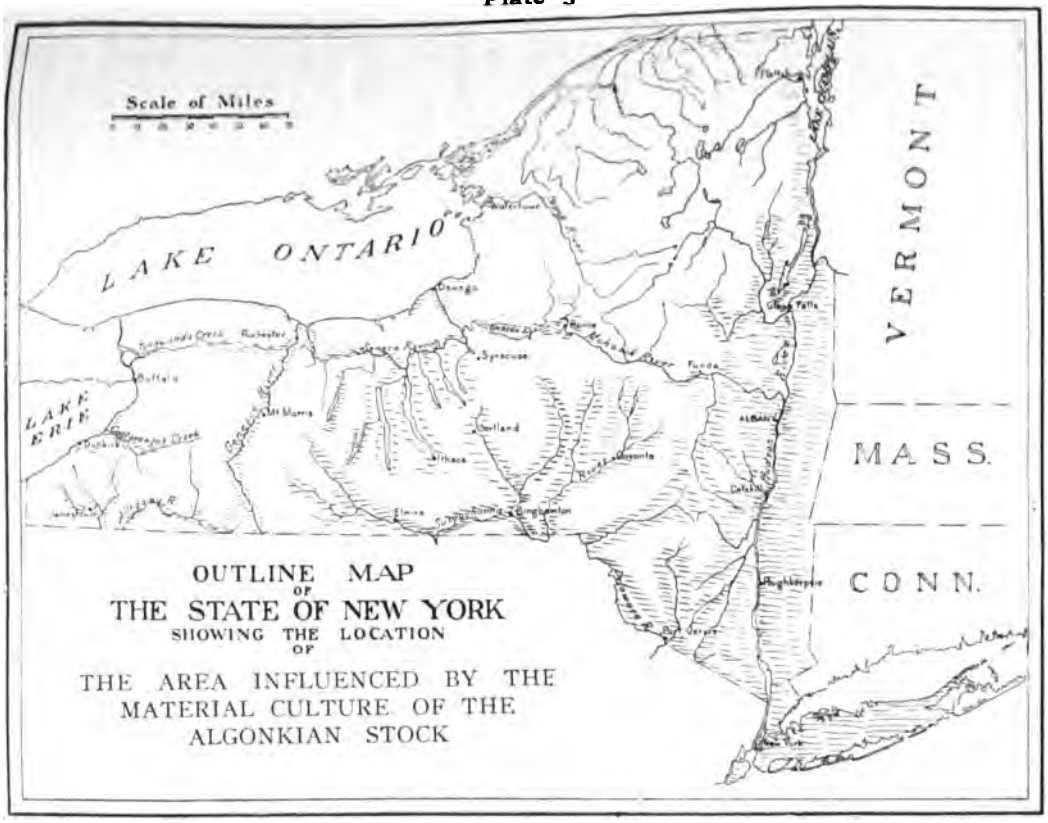
2 THE ALGONKIAN OCCUPATION OF NEW YORK

Previous to the coming of the Iroquoian tribes to this region, it seems to have been largely in the control of the Algonkian tribes. It is quite possible, however, that portions were held by tribes not of this stock, but it is nevertheless true that an examination of the field shows traces of Algonkian occupation and influence from one end of the State to the other and from north to south. We may safely assert that when the Iroquois first entered this geographical area their chief opponents, if any, were some of the Algonkian bands, though it is probable, also, that there were outpost settlements of tribes of the mound builder culture.

The Algonkian occupation of New York stretches back into comparatively remote times. There must have been wave after wave of these peoples, coming in band after band to hunt over the territory or to make settlements. Very likely the inviting regions south of Lake Erie and the Ontario–St Lawrence basin were as much occupied by Algonkian tribes as was New England at the time of the discovery.

The Algonkian occupation appears to consist of several periods, each of which so merges into the other that we can not tell when or where one commences and the other leaves off. Even when we do

Plate 3


Scale of Miles
LAKE ONTARIO
LAKE ERIE
VERMONT
MASS.
CONN.
Buffalo
Rochester
Syracuse
Utica
Albany
Ithaca
Oswego
Binghamton
Poughkeepsie
OUTLINE MAP
OF
THE STATE OF NEW YORK
SHOWING THE LOCATION
OF
THE AREA INFLUENCED BY THE
MATERIAL CULTURE OF THE
ALGONKIAN STOCK

distinguish differences in the cultural artifacts we find it is not always possible to say that the difference is due to the lapse of time and the change of pattern, or to the influence of another tribe that came to supplant an older tribe. Our best clues are found along the lakes and rivers where there have been fishing camps and settlements. On the St Lawrence, for example, there are sites along the banks that are deep with the refuse of the centuries and where one may find early Algonkian material near the bottom and in the body of the layer, and Iroquoian potsherds on top. As a general thing few individuals have had the time or patience to make a thorough study of the Algonkian occupation except along the sea coast. For solving the riddles of migrations and occupations, however, this difficult and perhaps unproductive work must be done. The collector who desires to get relics only and the museum that only desires to fill its display cases are both neglecting an obligation to science. Research work, alone, will solve the problem of the Algonkian occupation.

Periods of occupation. The earliest type of occupational evidence that we may assume to be Algonkian, yields crude implements, large, clumsy spears, steatite pottery, some rough and poor grade clay pottery, occasionally a polished stone implement, net sinkers, large flakes of chert or stone notched at the top for choppers, and now and then a grooved axe and celt. Only in very rare instances are any implements of bone found. Probably no graves of this period have ever been found. This period seems to have been influenced by the Eskimo.

A second or intermediate period of the Algonkian occupation is characterized by a larger number of grooved axes, roller pestles, a greater abundance of crude pottery, the surface of which is scratched or stamped with fabric or cord marks, steatite pottery, by pits filled with crumbling and almost completely disintegrated refuse and especially by the great abundance of drills, of notched arrowheads and spears of chert and other stone. Many of the finest ceremonial stones from New York belong to this intermediate period. The sites are generally along the waterways, on the banks or upon the high level fields near creeks, lakes and rivers. To some extent the early Algonkian sites are found in such places also, but most generally on the slopes and terraces far above the present river beds.

The later Algonkian occupation is more definite in character and covers almost the entire area of the State. It is characterized by numerous flints, by steatite pottery, clay pottery, notched choppers, grooved axes, celts, adzes, hoes, some copper implements, gouges,

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gorgets, birdstones, banner stones, cord-marked and pattern-stamped clay pottery, mediocre clay pipes, roller pestles, numerous net sinkers, and a considerable amount of bone implements, as awls, harpoons, needles and beads. The sites are generally on lowlands near streams and lakes, none of importance being on hilltops. The later Algonkian peoples were agricultural as is proved by the numerous instances in which charred maize and beans have been found in refuse pits. The later Algonkian tribes were more sedentary than their predecessors and their settlements presumably larger. This seems to be indicated by the presence of deposits of refuse, by refuse pits and heaps and by large areas of ground filled with carbonized matter, fire-burned stone and calcined bone.

Graves of this middle period are found, the skeletons being doubled up on one side (flexed). There are seldom any artifacts in the graves, the skeletons alone remaining to tell the story. A typical burial site of this period is that on the Markham site, near Avon excavated by Mr Harry Follett. A typical village site of this period was found on the outlet of Owasco lake, south of Auburn and was excavated by Mr E. H. Gohl and the writer (see page 340). The Owasco lake site differs in culture, however, from that of the Markham site.

The Algonkian peoples of the tide water and Long Island present a slightly different problem, but the type of the culture is unmistakable. The most abundant traces are found in the refuse layers and shell heaps on Long Island, Staten Island, the Westchester coast and the northern end of Manhattan island. The coastal Algonkin differed only from their inland kinsmen through the immediate influence of environment. For example, they frequently stamped the pottery with the edge of a scalloped shell instead of a cord-wrapped paddle, and they used shellfish to a large extent for food.

Typical coastal Algonkian sites were found and excavated by Mr M. Raymond Harrington, at Port Jefferson, Oyster Bay, Matinicock and Shinnecock, on Long island; Throgg's Neck, Eastchester and Westchester, on the Westchester coast; and by Mr Alanson Skinner on Manhattan and Staten Islands.

One is led to believe that the later Algonkin copied to a large extent the material culture of a more advanced division of the race that came from the south and the west, but which after a certain time was either absorbed or unable to maintain itself in the east section. That the eastern Algonkin received a great cultural impetus from the intruding strangers can not be doubted. We have

some realization of this when we note the thinning out of the polished slate objects in eastern New England, southern New York, Pennsylvania and the region north of the St Lawrence basin, including the Erie-Ontario slopes, in Canada. On the contrary, these articles appear in the greatest abundance west of the Mohawk headwaters, westward into Ohio and down the Allegheny to the Ohio river and southward to Tennessee. The St Lawrence basin all along the Great Lakes also yield the "problematical" slates, but there the cultural stimulus in other ways seems to be from the north.

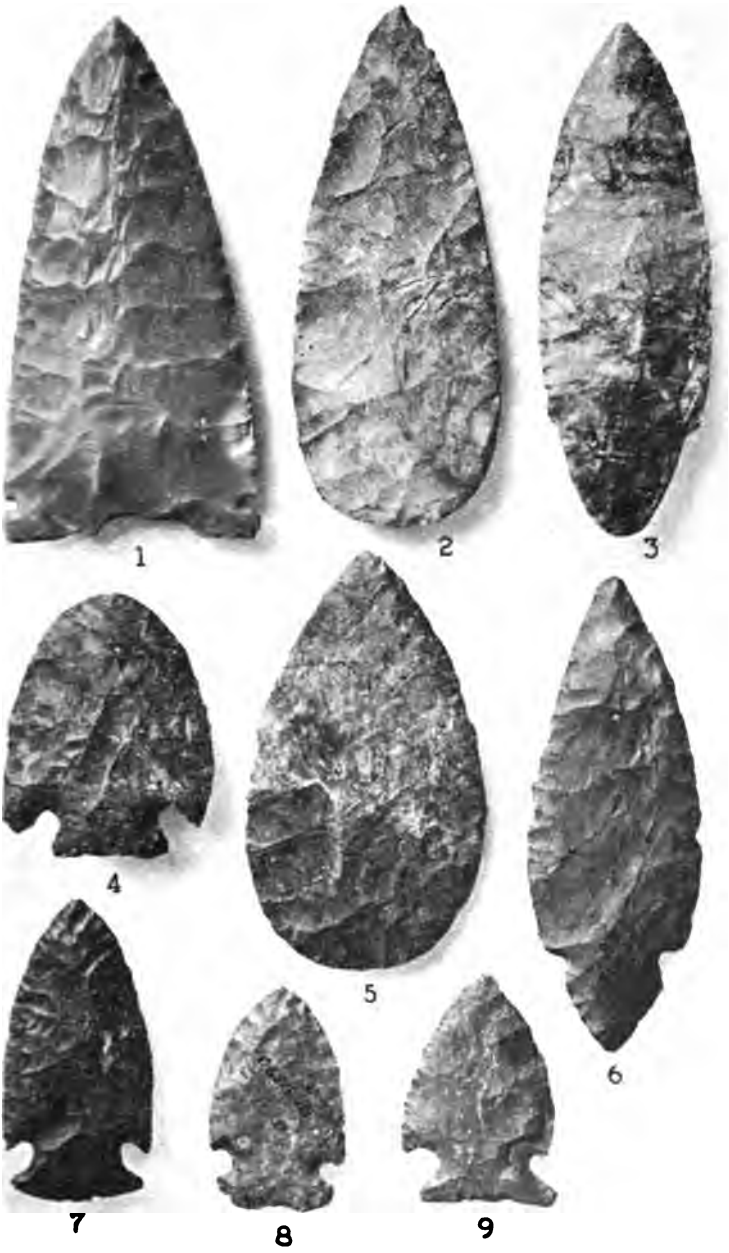
Definite traces of what is recognizable as an Algonkian occupation occur from the Genesee valley throughout its length in New York, Wyoming and Monroe counties containing many camp sites and a considerable number of villages of this culture. Evidences are found eastward through the Finger Lakes district, southward along the valleys of the Chemung, Susquehanna and Chenango, through various portions of Chenango, Otsego and Oneida counties. In Jefferson county to the north along the St Lawrence are also abundant traces. Southward along the Delaware river through the counties of Delaware, Ulster, Sullivan, Orange and Rockland the relics of occupation seem almost entirely Algonkian. The Hudson valley shows an Algonkian occupation as evidenced by the forms of pottery and other artifacts. In some places Algonkian articles are found directly beneath Iroquoian deposits, as at the mouth of Honeoye creek and along the shores of the St Lawrence river.

An Outline of Algonkian Cultural Artifacts

Methods of identification. In any endeavor to determine the cultural significance of any artifact there must be a certain and definite means of comparison. To fix the characteristics of a culture we must have before us the results of actual excavations and collections made in and on a site. In other words, we must reason from the known to the unknown. Once we know the characteristics of an Algonkian site we may look elsewhere and say with some degree of positiveness what is Algonkian. But to know in the beginning what is Algonkian we must find a site actually known to have been occupied by some Algonkian tribe and after examination we must find what the objects are, how they look, how they are decorated; and, what is equally important, we must determine what objects are associated. Not only must we study the ash pit and refuse heap, but the house site, the village site, the camp site and the fishing grounds.

Once we know the characteristics of a historical site, which may have within it European artifacts, we may look for older sites in

Plate 4



Certain types of knifelike blades, wherein the outcurved edge is thin and sharp. x⅔. From New York Algonkian sites.

1, waxy chalcedony from Lysander; 2, ivory chalcedony, Lysander; 3, banded chert, Lysander; 4, gray chert, Rush; 5, gray chert, Jefferson co.; 6, drab chert, Seneca river; 7, dark orange jasper, Perch lake; 8, light chert, Seneca river; 9, light chert, Seneca river.

which traces of the white man are absent. Then, when the general characteristics of the Algonkian culture are known we may say with some degree of assurance that a specimen is or is not Algonkian. If it is not Algonkian, what is it? Does it belong to the later Iroquois or does it belong to another culture altogether?

An examination of the numerous Algonkian sites in New York, and indeed elsewhere, demonstrates that the Algonkian culture was not uniform. This is not strange when we remember that the great Algonkian stock embraced many tribes and influenced this geographical area from comparatively remote times. It is natural to suppose that certain tribes varied in minor particulars from others and that in the process of time tribes may have changed some of their customs. There is an abundance of proof that this process of cultural change took place among tribes observed since the advent of the European. Changes took place, it is reasonable to suppose, in the eras before the white man came.

While it is true that our knowledge of the various occupations is incomplete, enough sites have been examined by competent observers to afford some basis for comparison and identification. The description which follows is a brief attempt to outline the characteristics of the Algonkian culture.

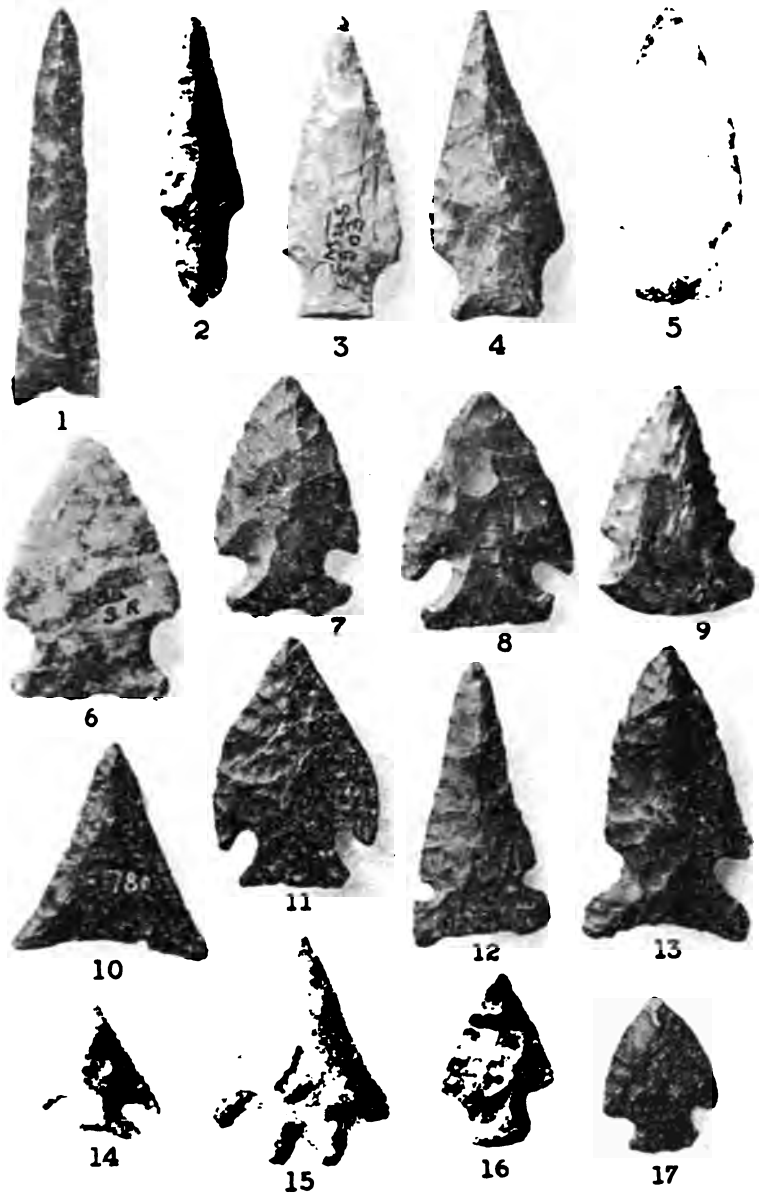
Chipped Points and Blades

Chipped implements. Nearly all the periods of the Algonkian occupation, where there was any considerable population, are characterized by innumerable chipped implements of chert, quartz, hornstone and other flinty rocks. The material to some extent varies with the location, the local rocks predominating, but favorite materials are not lacking; thus, even on the seashore where nearly all the chipped implements are of pebble quartz, there are to be found jasper and chert points also.

Spear points occur in abundance and vary in size from 3 inches to 10 inches with occasional specimens below and even above these measurements. Not only do these implements vary in size but in degree of workmanship, some being crude and clumsy, others revealing the skilled hand and eye of an expert. With the possible exception of some knife blades and unfinished blank forms that if necessary could have been used as spear points, all Algonkian spear points and javelin heads are notched or barbed.

Arrow points are numerous on all Algonkian village and camp sites and along trails of this occupation. Like the larger points considered as spears, Algonkian arrowheads are barbed, or at least have

Plate 5



Certain types of New York arrow points. x7/8. From Algonkian sites

1, dark chert, Livingston co.; 2, chert, Livingston co.; 3, chert, Livingston co.; 4, dull chert, Seneca river; 5, marble quartz, Long Island; 6, gray chert, Seneca river; 7, slaty chert, Seneca river; 8, slaty chert, Jefferson co.; 9, serrated rotary or beveled, Seneca river; 10, dark chert, Seneca river; 11, orange, red and black jasper with white bands, Seneca river; 12, gray chert, Seneca river; 13, gray chert, Seneca river; 14, waxy chalcedony, Oneida lake; 15, light gray chert, bifurcated stem, Rush; 16, chert, Livingston co.; 17, Monroe co.

distinct necks and shoulders. No less than 40 distinct forms of these arrowheads are recognizable, and into these forms are types of variants that in some particulars resemble one form or another, or several. The sorting of a large collection of points becomes a most perplexing problem, and, for a time it seems that one is pursuing an impossible task. While many arrow points seem to be individual and without previous or similar pattern, a close examination and comparison will usually fit the specimens into one or more classes, to be determined by the shape of the neck, barbs, shoulders, point or bevel.

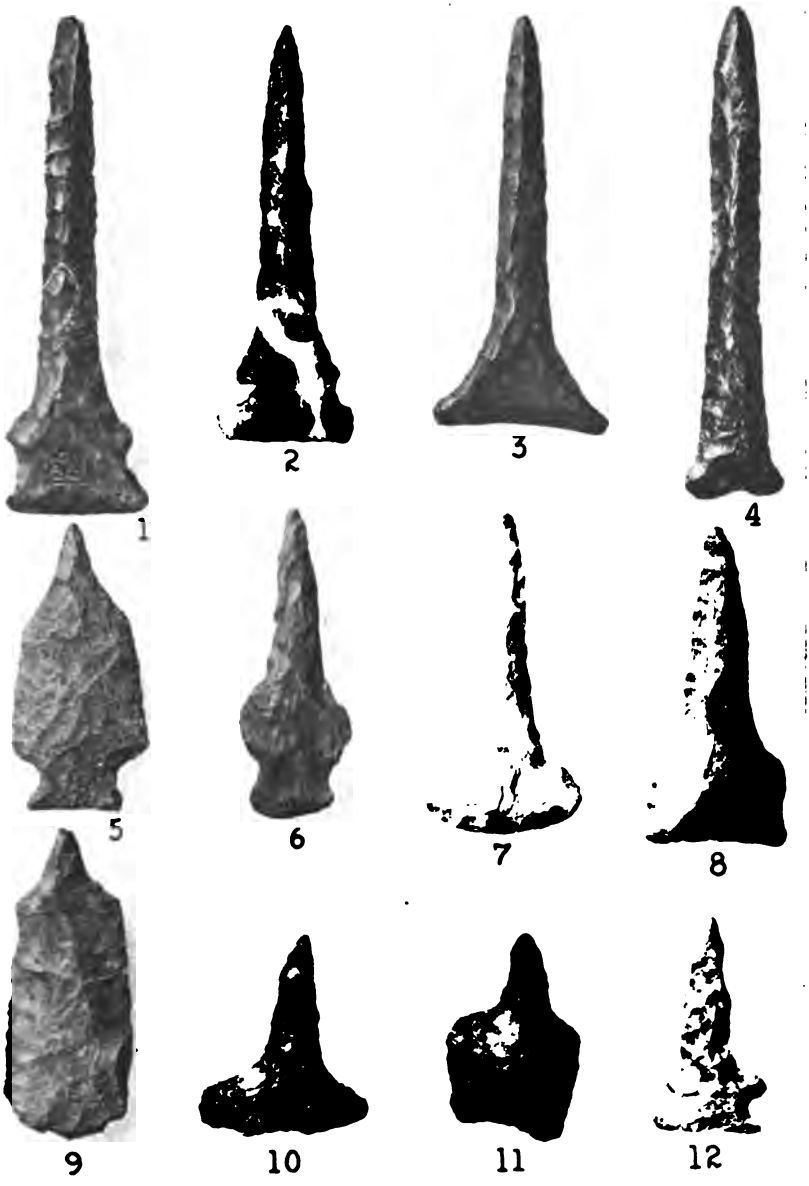
Frequently in sorting a large collection of arrowheads two or more may be found that are so similar in size, shape and technic as to suggest having been made by the same hands or gauged by the same pattern.

The Algonkian tribes used triangular points, popularly termed "war points," but as a general rule did not make them with the same degree of skill as the later Iroquois. In most cases, too, the Algonkian point is larger than the Iroquois. Certain Algonkian sites, as at Owasco lake and Castleton-on-the-Hudson, yield triangular points almost to the exclusion of other types, but these sites seem to have belonged to the period of Iroquoian influence.

Knives. Chipped stone knives are commonly found on Algonkian sites. Frequently knives are confused with spearheads, and, indeed, many knife blades might have been employed as spear points and vice versa. The distinguishing feature of a knife is its curved edge. Most knives are thinner than spearheads and have a more even edge, which when tried by the thumb feels sharp. A spear may have a rough or an irregular edge. Many knife blades have no notched shoulders, and many of them are small; some are oval, some round, some lanciform and some petaloid. One type of the double-pointed blade has one of the pointed tips slightly notched on either side, but on unmixed sites these are very rare and seem to be the products of another culture. Algonkian knife blades are made from better material than spearheads and arrow points. The material is better chosen and free from defective spots. Some very fine specimens of knift blades are made from jasper, chalcedony, quartz and fine grades of chert. Many are of unusual length, from 6 to 10 inches or more.

Scrapers. Scrapers are commonly found on sites of the Algonkian occupation. Several forms occur, due in some measure to the different ways in which scrapers were used, as with or without

Plate 6



Certain types of New York drill points. x 9/10. From Algonkian sites.

1, shouldered drill of yellow, orange and red jasper, Onondaga co.; 2, mottled chert drill, Ontario co.; 3, black chert, Livingston co.; 4, waxy black chert, Livingston co.; 5, drill pointed blade, Schoharie co.; 6, shouldered drill, Albany co.; 7, waxy light gray chert, Nunda; 8, gray chert. Monroe co.; 9, Oneida co.; 10, Monroe co.; 11, Schenectady co.; 12, Genesee co.

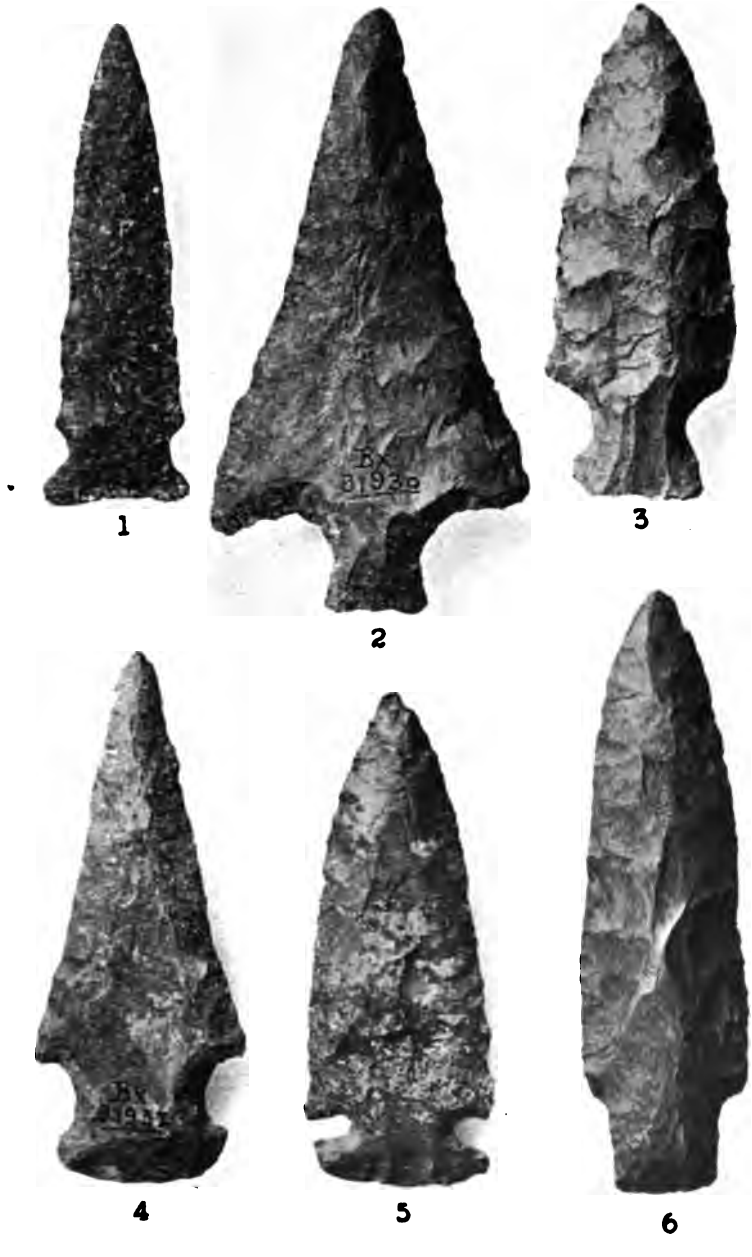
handles. One common form of the scraper is that having one side, the under, a smooth curved surface, and the other humped or "turtle backed." Scrapers of this kind may or may not have been employed in handles, but very few of them are notched at the handle end. A second form is chipped on both surfaces but the scraping edge is beveled one way, to give a chisel-like surface. Many of this type are stemmed and notched. A third form is made from abruptly broken arrow or spearheads. The fractured edge is simply chipped back from one side to provide the chisel edge for scraping. Scrapers are also made from flakes and many were formed from larger blades, the sides of which were used for scraping and not the ends. Some knife blades show that the upper or handle-end was used as a scraper. Of course not all scrapers were made of chipped flint, chert and similar materials. Some were made of tough slates, granites and sandstones, and ground down in the form of small adzes. These come under the head of polished stone implements.

Perforators or drills. Perforators are found on Algonkian sites but probably none have been found on Iroquoian sites that are original. Several types of perforators are found on sites of the Algonkian occupation. Among these may be mentioned the long slender shafts of flint or jasper that are of nearly uniform diameter. These may or may not have shoulders and necks. The usual type may have been fastened to a shaft so as to permit its use on a rotating spindle driven by a bow string or by the motion of a pump drill. Another type has a very rough and massive top, as if this were a handle to be used without a spindle. Not all so-called perforators were in reality drills; at least not all were constantly used as such, for both human and animal bones have been found pierced by them in such a manner as to indicate their use as arrow points.

Other chipped implements. Algonkian sites yield several chipped forms not to be classed as projectile points. Among these may be mentioned chipped hoes of shale, chipped celts, choppers, disks and sinkers.

The implements termed hoes may or may not be hoes, but the shape of the broad blade has suggested this use-name. Hoes are usually chipped into shape from layers of shale or sandstone and usually have a noticed neck and a broad chopping end chipped sharp. Very few show much evidence of having been used to such an extent that the end is polished through friction in the soil. Not many hoes are to be found in collections, perhaps for the reason that the form is unattractive to the amateur collector and farmer.

Plate 7



Certain types of New York spear points. x⅞.

1, Seneca river; 2, weathered chert, Lysander; 3, coarse chert, Lysander; 4, dull gray chert, beveled, Lysander; 5, waxy gray chert, Seneca river; 6 coarse dull chert, Lysander.

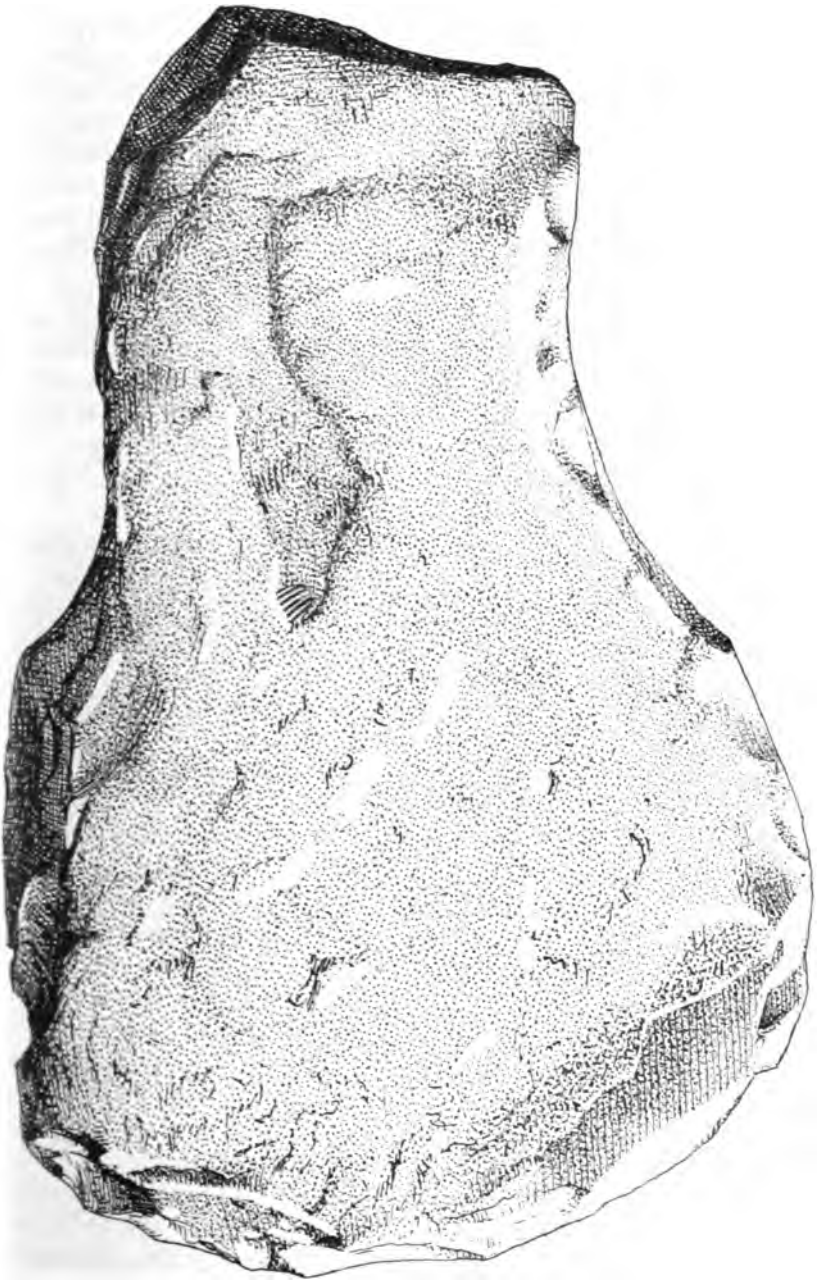
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Plate 8



Stone chopper or hoe, from Chenango Forks

Pestles. The ordinary Algonkian pestle is cylindrical in form and long. The diameter varies from 1½ inches to 4 inches. A few pestles are as short as 6 inches but the average form is approximately 14. Exceptional pestles have been found with lengths above 18 inches and ranging up to 24. Along the Hudson river from Catskill to Glens Falls, and along the Seneca river, pestles have been found with the effigies of animal heads at the upper or handle ends. In most cases the head bends at a slight angle. Along the Seneca river some pestles seem to be phallic. These may have been used as clubs (see plate).

Stone mortars. Stone mortars are not to be regarded as common, though one should not consider them rare. In proportion to the number of stone pestles, however, mortars are exceedingly scarce. Most of them are made from small boulders hollowed out, apparently, by a considerable expenditure of time and energy. The cavities vary from mere hollows to cups 3 to 5 inches deep. A few New York specimens are double faced.

Metates. Most of the grinding or mealing stones found in Algonkian sites are flat pieces of shale or sandstone, of convenient size and thickness. One surface usually shows that it has been depressed and smoothed by the rubbing of a muller, and the reverse generally is pitted and scarred as if used as an anvil in the breaking of chert or other hard stones. It is quite likely that earthen pigments, burned stone and other hard mineral substances were reduced in mortars and metates, and that they were not merely used in the preparation of vegetable meals and hominy.

Mullers. For cracking and grinding substances on the mealing stones, mullers were used. Mullers are fairly common on sites of this culture and may be recognized by the smooth and slightly curved underside. The more finished types are discoid and well shaped. In many instances the edges seem to have been used for hammering, and thus many of the finest specimens have a roughened circumference. Some mullers are polished on both sides and so nearly circular as to resemble quoits or game disks that might be rolled over the ice in contests of skill. For certain forms of mullers, see plate 130.

Celts. Stone hatchet heads, frequently called celts, are commonly found on Algonkian sites. There is much difference between the roughest of these specimens and the best. Some of the finest are highly polished and balanced with great nicety. The Algonkian people liked to bring out the grain of the stone and to reveal by polishing the mottling or the banded layers. Some of the best specimens are of granitic rock, many are of diabase and a few are of

Plate 9



Algonkian stone mortar and pestle. Onondaga county

sandstone. There are very few specimens of polished flint or chert. Celts reveal all the processes of manufacture from the first rough chipping to the pitting process and the final polishing. There are some localities where celts appear to have been better made than in others. The Seneca River region is noted for its beautifully formed celts. There are more than two hundred in the Otis M. Bigelow collection.

In the ordinary symmetrical celt used by the Algonkian tribes there is little or nothing, save the site upon which it is found, to distinguish it from specimens made and used by Iroquoian or mound-building peoples. In other words, the celt is common to nearly all forms of aboriginal culture and variations are only local, unless we except extreme forms. The size of Algonkian celts varies from a length of 1 inch to 11 or 12. The average length is approximately 5 to 6 inches. (For forms see plate 115.) Consult Skinner: Coastal Algonkin.

Adzes. A celt with one side more flattened than the other may be regarded as an adz. This is easily determinable when the cutting blade is flattened on one side and beveled on the other. Some adzes have a slightly concaved underside and closely approach gouge forms. Adzes in general are finished with more care than celts. An interesting form of adz is that having beveled sides, that is to say with a cross section an approximate oblong with the upper corners ground off. Most beveled adzes are made with great care, the plain surfaces are smooth and the entire blade is well polished. It is not yet definitely established whether beveled adzes are original with the Algonkian culture or belong to the mound area in New York. They are not widely distributed and do not seem to be found on the coast.

Gouges. Gouges were made and used by the Algonkian tribes. There are several types of gouges and as many variations of types as the individual makers could produce. All have curved cutting edges and are concaved on the underside. The backs may be round, flat or beveled. The types are those having, first, a short scoop, leaving the remainder of the implement ungrooved; second, the trough or channel running the entire length of the implement; third, the type with knobs or a groove on the back for fastening the handle. Some gouges have the butt end sharpened as a chisel. Gouges when hafted were fastened much as adzes, to a T handle.

Many Algonkian gouges are finely formed and polished. They are not so common as celts and as specimens are considered more valuable than adzes or celts.

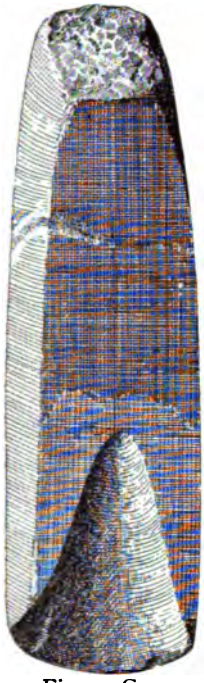


Fig. 2 Gouge



Fig. 3 Grooved axe

Grooved axes. The grooved axe is typical of the Algonkian culture. The Iroquois did not use it, but mound-building Indians did. In New York grooved axes are larger and heavier than any other form of hafted cutting blade, though small specimens are not wanting. So far as our knowledge goes, nearly all New York forms have the groove at right angles to the medial line of the object, that is, straight across and not slanted. New York grooved axes are not fluted like some western forms.

Grooved axes in New York may be considered rare but they have been found in nearly all parts of the State where there are Algonkian sites. Some of the largest specimens come from the valley of the Hudson, Long island, Westchester county and Staten island. (See plate 125.)

Grooved club heads. These are considered rare objects. The State Museum has a number of specimens, some of which are made from natural pebbles of granite or other hard material, and some of hard rock dressed to shape and grooved. Some club heads show no rough usage, the rounded ends being quite smooth. Others seem to have been used as mauls or hammers. Club heads are always grooved on the short diameter. (See plate 126.)

Grooved weights. In certain localities naturally formed ovate pebbles of quartz or other water-washed stone are grooved around the long diameter. The grooves are distinct and are picked or beaten in by percussion. Just what these objects are is not certain for they may have been used as bola stones, as net weights, or inclosed in rawhide envelopes as loose heads of small war clubs. They are found in western New York sparingly, along the Genesee, about Irondequoit bay, in the Mohawk valley (rarely), in the Schoharie valley, about Otsego lake and along the Hudson. Many specimens have been found on Algonkian sites near Coxsackie. Skinner illustrates some from coastal sites in New York.

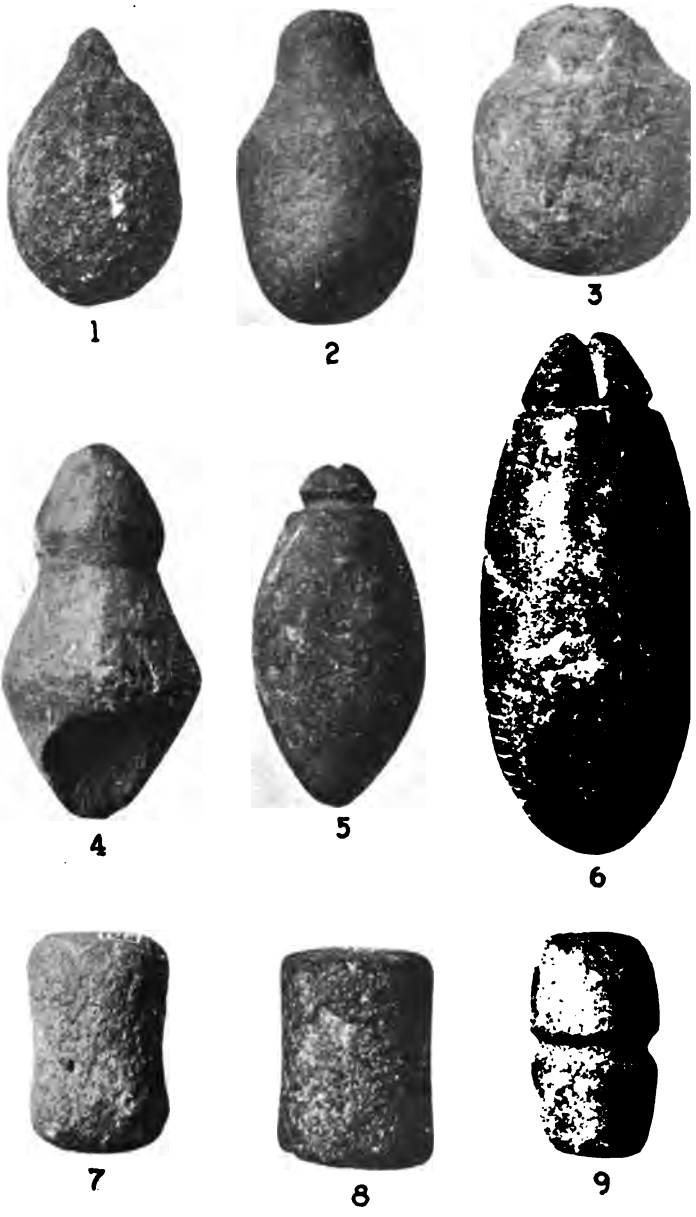
Sinew stones. Sandstone pebbles are sometimes found, having the surfaces and edges abraded and worn in such a manner as to resemble large pieces of beeswax upon which cords or shoemaker's thread had been rubbed. Many of these implements are neatly made and the grooves are regular. They are commonly called sinew stones from the idea that they were used for smoothing thongs and sinew cords. This seems to be a possible use. A surprisingly large number are abruptly broken so that complete specimens are comparatively rare. Complete sinew stones are rarer than bird stones in New York. (See plate 136.)

Plummets. Stone plummets are among the rarer of the problematical objects found within the State. A number of specimens have been found along the Seneca river and near Oneida lake, others northward along Lake Champlain. Two fine specimens found by Prof. D. F. Thompson are of picked limestone. They were found at Green Island, N. Y., and are similar to specimens from Maine. Other specimens of this variety have been found along the Hoosick river which flows as a boundary between Washington and Rensselaer counties. Two specimens from Brewerton have necks less well defined with a groove running over the top. Another variety of plummets made of polished talc comes from Jefferson county. One specimen is cigar-shaped with a knob formed at the blunt end probably as a means of suspension. One from Lysander made from a natural pebble slightly worked has this same characteristic, but with the addition of tally marks on one side. A finely finished specimen is from Caughdenoy, Oswego county. None of the plummets from this area are polished. Plummets do not occur on all Algonkian sites, and indeed it is a question whether or not some of them do not belong to another culture quite different from that which we recognize as Algonkian. Ungrooved axes, gouges, wide arrow points and spears are associated with plummets. (See plate 10.)

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Plate 10



Bola stones, "plummets" and spool-shaped stones

1, Bola stone from Patagonia; 2, North Troy; 3, Genesee co.; 4] erton; 5, Brewerton; 6, Lysander; 7, 8, spool shaped stone, Coxsack grooved spool, Coxsackie.

Spool-shaped objects. Stone spools picked from tough stone have been found along the Hudson river from Catskill to Glens Falls. They are simple cylinders concaved and are not more than 2 inches in length. The ends do not show usage. (See plate 10.)

Steatite vessels. Fragments of soapstone pottery are found in nearly all parts of New York. Complete vessels in this State are extremely rare, only two specimens being in the State Museum. The great abundance of the fragments in certain localities shows a wide and prolonged use of this type of dish. Many fragments have lugs or projecting handles and some show perforations as if cracks had been tied by cords passed through holes on either side of the fracture.

One complete specimen was found in Saratoga county. It is a thick, heavy, ellipsoidal dish with lugs, and was used as a mortar

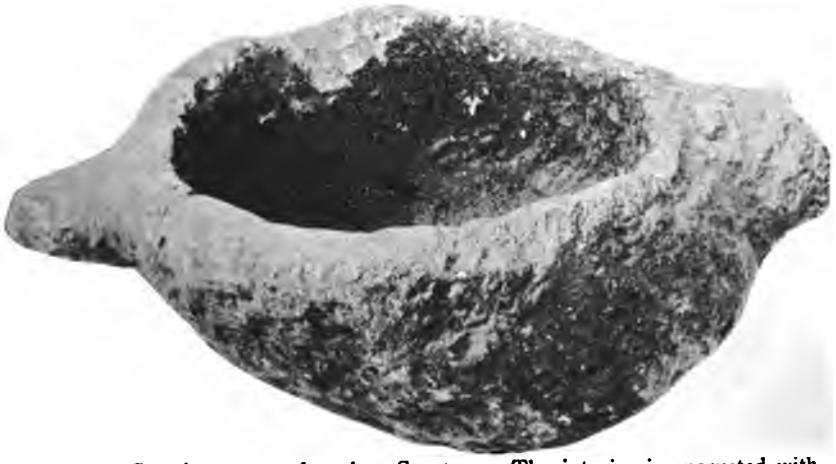


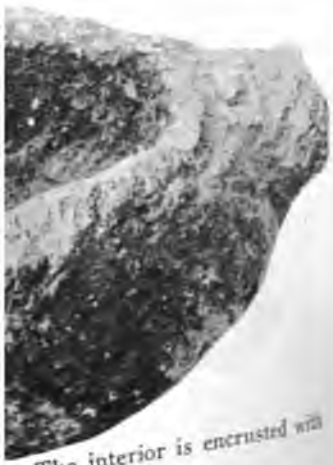
Fig. 4 Steatite mortar found at Saratoga. The interior is encrusted with pulverized iron oxide. x⅓

for crushing red iron oxide. The pigment thickly encrusts the interior of the vessel. A second specimen is a small thin vessel shaped like a shallow ovate bowl. Unlike the first specimen, it is smoothly finished throughout.

The Iroquois did not use steatite dishes, and fragments are found only on Algonkian and on Eskimo-like sites. A few fragments have been found in the Genesee valley associated with bell pestles.

Faces or heads of stone. On certain Algonkian sites, particularly those influenced by the Delaware, effigies of human faces or heads are found. At least two such faces from the State are good pieces of aboriginal sculpture. The human features on these specimens are well modeled. Other specimens are more or less grotesque or

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Plate 11



Stone human face objects: 1 Chemung valley; 2 Mohawk valley. ⅔

. Some are merely indicated by incised lines and r drilled depressions. The Delaware used faces of n their ceremonies. (See plate 11.)

pipes have been found on Algonkian sites, but they us. There are several forms, ranging from rude ully formed platform monitors. One typical form tubular bowl bent at a slight angle from a flattened This form is sometimes copied in clay, though the and the bowl shorter. The material of the stone steatite, or some allied substance.

so-called, have a barrel-like bowl resting upon a ıort stem which sets upon a flattened rectangular



Micmac pipes found in central New York

may be decorated with incised lines and have a gh it. Micmacs are found in northern New York dered fairly modern, some showing the marks of are the most ornamental forms of Algonkian stone ıg animals carved in relief on the bowl. (See

articles. On most Algonkian sites one or several slate articles are found. Among these are banner , bird stones, bar amulets and gorgets. Other minor as pendants and perforated discoids. That these by the Algonkian tribes is proved by finding them nufacture on village sites and in "workshops."

Such specimens are usually made of local stone, but finished articles may be and frequently are of extralimital materials, as Huronian slate. The polished slate culture is described in the chapter on the mound-building people (see page 83).

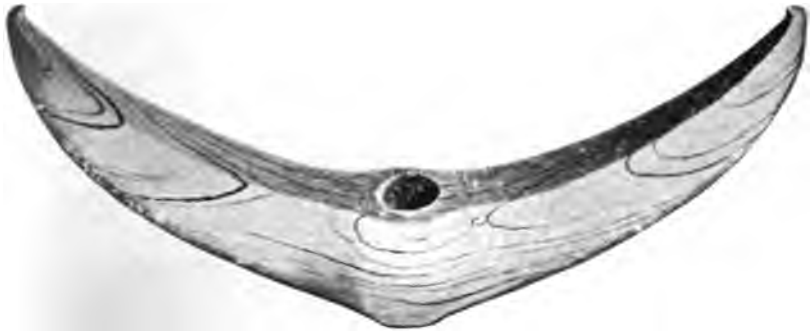


Fig. 6 Horned banner stone of striped or "Huronian" slate, from the Seneca river near Baldwinsville. x⅓



Fig. 7 One holed gorget from Baldwinsville. x¾

It may be well to keep in mind that none of the polished slate "problematical forms" seems to be complete in itself, but appears rather to be parts of other and more complex objects. This makes the problem of determining their use all the more difficult. It is

Plate 13



Algonkian clay vessel from Chenango Valley. Otis M. Bigelow collection, tate Museum. x⅓.

such as sea shells, as by the edge of a scallop shell, bark reed, fingernail etc. Nearly all true Algonkian forms show impressed patterns, as opposed to the general Iroquois method of drawn patterns that dug into the clay and left the markings.

As a rule Algonkian pots not influenced by the Iroquois have no overhanging rims, and no collars. A vast number of Algonkian potsherds show that the decoration was carried over the rim and down into the neck of the pot.

Complete Algonkian vessels are not common and few museums have more than three or four specimens. Some found in fragments have been restored.



Fig. 9 Pottery vessel of Algonkian type from Ouaquaga. Yager collection. x⅕

Pottery pipes. Algonkian pottery pipes in New York seldom approach the beauty of form or finish of either their own stone pipes or of Iroquois clay pipes. The earlier Algonkian clay pipes are crude, some being almost childish in modeling. In later sites there is considerable improvement until in some inland sites pipes have arrived at a definite form and are well made. Decoration is

Plate 14



nts of pottery from Staten island localities. Staten Island ıce Association collection. 1, 2, 4, 5, 8, 9, 10, from Mariners Watchogue; 6, Tottenville.



2



4



6



8



10

island localities. Staten Island
1, 2, 4, 5, 8, 9, 10, from Mariners

Plate 15



TYPES OF ALGONKIAN PIPES FROM NEW YORK

1 and 2 are from a single grave in Madison county
3 and 4 are typical Cayuga county Algonkian forms

both by modeling and by impressed designs. Modeled ornamentation seems late and the result of external influence. (See plates 14, 15.)

In shape, the Algonkian pipe takes several forms: (1) the long, straight, conical tube with the bowl but slightly expanded, decorated and undecorated; (2) the bent tube, with the bowl having a slight upward turn; (3) the flat or thin beveled stem having a bowl at a slight angle, imitating stone forms; (4) the bowl at nearly right angles, the stem either round or slightly flattened, the whole resembling a bent human arm, the stem being the arm to the wrist and the bowl a portion of the upper arm. The elbow bend and the tip are copied in most instances. The real prototype may have been a bark tube or cornucopia with one end bent slightly upward for the bowl and the longer portion flattened out as a stem that could be conveniently held in the mouth. A little experimentation with a piece of birch bark will demonstrate the possibility of this.

Copper implements. Articles of native copper are sometimes found on Algonkian sites; indeed, wherever polished slates are found copper objects may be expected. These include spearheads and arrowheads, gouges, chisels and adzes, small hatchets, mattocks, awls, fishhooks and bead ear ornaments. Copper articles are among the rarest of New York specimens. Most have been found on the surface but a number have been taken from mounds and from graves. Not all are Algonkian by any means; indeed it is doubtful if the New York Algonkins ever made copper implements. Those that they had were probably acquired from extralimital sources through trade or otherwise. They are probably of mound culture origin, the material coming either from Virginia or from the Lake Superior region. No native copper implements are tempered, the hardness that they do possess being due to the hammering and annealing process.

Bone and antler implements. Algonkian bone implements in New York may be considered relatively numerous and some sites, especially on the coast, along the St Lawrence and about Oneida lake, have yielded several thousand good specimens and many more fragments. These articles include awls, beads, blades, harpoon heads, tubes, perforated teeth, arrowheads, antler punches, needles, shuttles, turtle shell cups, etc. Articles of walrus ivory are sometimes found along the St Lawrence and pieces of cut whalebone have been found on Long island.

Village sites and fortifications. Coastal Algonkian sites cover fairly large areas and are characterized by more or less extensive

esigns. Modeled ornamenta-
ernal influence. (See plate

several forms: (1) the long,
slightly expanded, decorated
vith the bowl having a slight
eled stem having a bowl at a
4) the bowl at nearly right
lightly flattened, the whole
n being the arm to the wrist
arm. The elbow bend and
The real prototype may have
one end bent slightly upward
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beads, blades, harpoon heads,
tler punches, needles, shuttles,
us ivory are sometimes found
nt whalebone have been found

Coastal Algonkian sites cover
ed by more or less extensive

Plate 16



Implements of bone and ivory from Jefferson county. Many of the specimens in the R. W. Amidon collection (State Museum), from which these objects are selected, show a marked similarity to those of the Eskimo.

Plate 17



s of walrus ivory and bone from the R. W. Amidon collection
um), Jefferson county, N. Y.

17



from the R. W. Amidon collection
Y.

refuse deposits of marine shells intermingled with animal bones
other waste material and occasional specimens of ornaments
implements. Some of these shell heaps are as deep as 8 or 10 f
though most have a depth of 4 feet and less. Some coastal s
have good occupational layers with refuse pits and fire holes. C
tral New York village sites are near lakes or large streams
spread out over a considerable acreage, as if the village or ca
was either not compact or that it was moved about in the sa
general spot. Very few sites away from the coast have the th
deposits of solid refuse found in places of Iroquois occupat
which may have resulted from the Algonkian custom of throw
refuse on the surface, to be destroyed by rodents and the eleme
and thus preventing the accumulation of intrusive débris in
ground.

There were several Algonkian sites near Plattsburg on L
Champlain, others near Coxsackie and at Croton point on
Hudson; in Central New York, at Owasco and Oneida la
Coastal sites have been described by Skinner and Harrington
American Museum publications, and in this work, pages 340–4

The Algonkins built their villages on the flat land near navig
streams, and while they did have fortified refuges in the form
stockades, the remains of these are few and not impressive.

3 THE ESKIMO-LIKE CULTURE

In various localities throughout the State there are sites
seem to have been occupied at a very early period. The implem
found are few and crude, with now and then the anomaly of s
wonderfully fine specimen. The fire pits show little refuse
almost no bone, save fragments calcined by heat. In some of t
sites fire-cracked stones are abundant. Graves are shallow and s
no trace of osseous substance.

So far we have described nothing especially characteristic,
when we discover on sites like these semilunar knives of slate
rubbed slate double-edged knives and projectile points, we h
something as a guide (see plate 18). Associated with these obj
are found fragments of soapstone pottery. Chert arrowheads
broad, large, and have sloping shoulders. Some are almost loze
shaped and many have thick, wide necks as if used as lance or
poon heads. Celts and polished stone scrapers are found on t
sites as also are chert scrapers and perforators. On a few
these sites bone harpoons have been found in ashy deposits
plate 17). Dr O. C. Auringer found a beautiful walrus ivory

Plate 18



Slate knives and semilunar chopper from central New York sites. x⅓
1, 2, VanBuren, Onondaga co.; 3, Lysander; 4, Brewerton; 5, Glens Falls; Hudson.

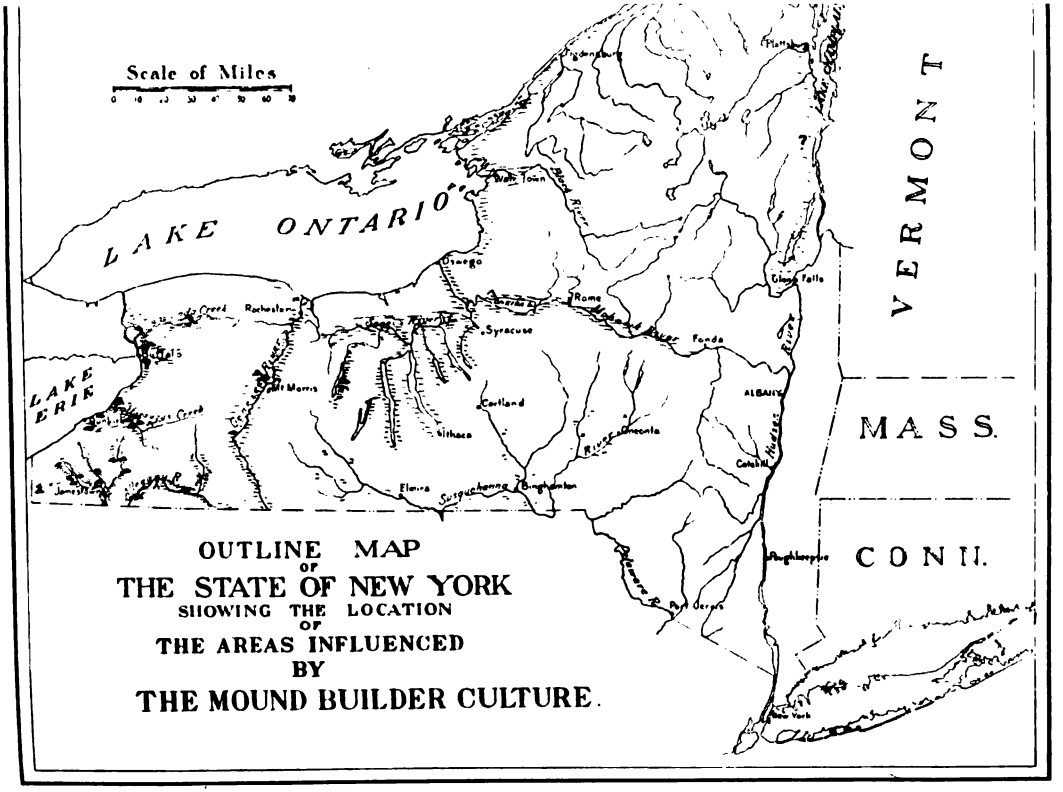
in a fire pit near Troy and associated with it on the site crude and much weathered flints. In some sites of this general cultural horizon will be found gouges, hemispheres of hematite, figurines, ornaments of unusual shapes, and many other unfamiliar artifacts.

It is evident that sites of this character are not Iroquoian, that they are not of the clay pot using Algonkian tribes, and that there is little distinctive in them resembling the mound-building people, except for an occasional bird stone. A study leads to the conclusion that sites of this character were once occupied by a people influenced by the Eskimo, if not actually by the Eskimo themselves. Our investigation points out that the influence came from the north, especially the northeast.

It would be difficult to indicate any special center in this State from which this culture radiated. The area showing traces of this Eskimoan influence are: (1) the St Lawrence basin to Clayton; (2) the east and south shore of Lake Ontario from Clayton to Irondequoit Bay; (3) the Genesee valley; (4) the Finger Lakes region, including the entire drainage basin; (5) the Champlain valley; (6) the Hudson valley to Albany. Scattered relics are found in Western New York and in the valleys of the Susquehanna and Delaware with their tributaries. The culture thins out as it ranges south, but it may be expected to appear in Vermont on the east and even in Massachusetts. Not much may be expected in either Pennsylvania or Ohio.

Many of these so-called Eskimoan sites appear to be of great antiquity, while others seem closely to approach the period of the middle Algonkian tribes. Indeed certain Algonkian sites that date to the opening of the colonial period seem in some ways to have been influenced by this northern culture. It is quite likely, therefore, that the period of influence was a lengthy one. We may even be permitted to ask several questions concerning the people who left these evidences, these questions to constitute the problem set forth for solution by students of archeology. First, we may ask were the people characterized by this culture Eskimoan? Second, if they were not of Eskimo stock, who were they? Were they Boethuck or Algonkin? Third, did not some undetermined people copy certain features of Eskimoan culture? Fourth, were these people exterminated, driven back to the north, or were they absorbed by later comers to perpetuate some of their arts?

It is possible that some time a painstaking student may discover and open up a site that will answer some if not all of these inquiries.



OUTLINE MAP
OF
THE STATE OF NEW YORK
SHOWING THE LOCATION
OF
THE AREAS INFLUENCED
BY
THE MOUND BUILDER CULTURE.

Until then we may only point out the differences that we observe between these sites and others and cautiously state that culturally they resemble those of the Eskimo.

4 THE MOUND-BUILDER OCCUPATION OF NEW YORK

There was a time when western New York was regarded as peculiarly the domain of a mysterious Preindian race known as the "mound builders."

Observers, astonished by the existence of earthworks and other prehistoric tumuli, have written elaborate descriptions and devoted considerable space to more or less melancholy speculation. The term "mound builder" became quite as romantically wonderful in the new world as that of Druid did in the old.

The mounds and earthworks of Ohio early attracted interest, and especially as the colonists pushed westward and cleared new land for settlement or agriculture. Thus we find such early authorities as Thomas Jefferson, Benjamin Franklin, President Ezra Stiles of Yale and Noah Webster advancing theories about the builders of the mounds. The first extended discussion of the subject was written by Dr Benjamin S. Barton, who in 1797 published his work on "New Views on the Origin of the Tribes in America." In this work he advanced the theory that the mounds were not built by Indians but by "A people of higher cultivation, with established law and order and a well-disciplined police." Doctor Barton seems to have been the first writer to advance the notion of a "lost race."

Soon after Doctor Barton's book appeared two other writers discussed the subject, Bishop Madison of Virginia and the Rev. T. M. Harris of Massachusetts. Mr Harris thought the mounds proved their builders possessed superior skill and were of higher civilization, but Doctor Madison, who had traveled widely and studied the mounds and their antiquities, saw nothing in the evidence to convince him that the mounds were not the product of the Indians. Each of these observers was a pioneer of different schools of belief, but for more than half a century those who believed in "a lost race of civilized men whom the Indians displaced or annihilated" controlled public opinion on the subject. Even today there are many who puzzle over the "mysterious race now departed." J. P. McLean, for example, who in 1879 published his book on "The Mound Builders" commenced his first chapter thus: "An ancient race, entirely distinct from the Indian, possessing a certain degree of

civilization, once inhabited the central portion of the United States." In his preface he sums up the popular idea in the following: "The mystery surrounding these lost people creates a fascination which is greatly increased in the mind of the student of nature as he lingers among the ruins which invite his attention and rivet his eye. Standing upon one of the monuments the lover of the mysterious will lose himself in mediation. . . ."

Beside the many local antiquarians and historians in New York such men as Henry Schoolcraft, E. G. Squier and Dr E. H. Davis, Franklin B. Hough, T. Apoleon Cheney and Dr Frederick Larkin,[1] described, surveyed and speculated upon the earthworks of New York.

Wonderful things are ascribed to this ancient race, which is described by the early writers as highly civilized, as making implements better than the Indians possibly could and as erecting earthworks that proved them quite familiar with geometry. One writer even pretends to have discovered how the mounds were erected. He claimed to have found a copper tablet having engraved upon it a mastodon in harness.[1] This is said to have been sent to the Smithsonian Institution but it seems never to have reached that place.

Archeologists who have spent many years in excavating mounds and who have studied the problem of the mounds and the builders of the mounds have discovered many facts that prove the fallacy of the old fancies concerning them. Among those who have explored, observed and written in the modern methodological way are Cyrus Thomas of the Smithsonian Institution, Dr William H. Holmes, Prof. Lucien Carr, Prof. F. W. Putnam of Harvard, Prof. William O. Mills of Ohio State University, Prof. Warren K. Moorehead of Andover and Dr Clarence B. Moore. Many other investigators have studied the question in the field and after extended scientific observations and by careful comparison have drawn their conclusions. From a lengthy consideration of a wide range of facts we now are warranted in believing the following facts fully established:

1 The builders of the mounds were Indians of certain tribes whose descendants still live.

2 The aboriginal artifacts found in the mounds were made by Indians and no native object found in the mounds differs from objects that Indians at the time of the discovery, made or were able to make.

3 Many true mounds of considerable size are not very old, but

[1] Larkin, Frederick, in "Ancient Man in America," Randolph, N. Y., 1888.

contain in inclusive deposits objects acquired after the coming of the Europeans but such objects are not found in New York State.

4 Early explorers saw mounds in the course of erection. They have preserved accounts taken from the Indians explaining why and how the mounds were erected.

5 The mounds were not all erected by the same tribe, but by different tribes according to locality.

6 The links connecting the Indians with the mound builders are so firmly established by historic and archeologic evidence that archeologists now know them to have been one and the same people.

7 All these conclusions with others are sustained by the explorations conducted by trained observers employed by scientific institutions. The best summary of results is contained in the Twelfth Annual Report of the Bureau of Ethnology, a department of the Smithsonian Institution.

The earthworks of aboriginal origin in New York are broadly divisible into two classes: (1) walled and trenched inclosures, (2) mounds.

With very few exceptions all the fortifications or walled inclosures in New York may be ascribed to the Iroquoian tribes. These earthworks outline retreats or strongholds, and the earthen walls were the bases for stockades. In no sense are these banks and earth walls to be regarded as mounds. None of them was erected by mound builders unless we include the Iroquoian tribes as mound-building Indians, since the Iroquois did occasionally build low mounds.

In New York the mound-builder culture is not always coincident with the presence of mounds. Scattered relics of this culture in the form of monitor pipes, gorgets, banner stones, stone tubes and even isolated burials and stone graves indicate the one-time presence or cultural influence of the "mound-building" Indians.

For the purposes of our analysis it is our intention to treat the mounds of New York as one phase of an ethnic culture. We are enabled by this method to treat other evidences of that culture without necessarily confining our descriptions and facts to an immediate association with mounds, though we take our datum from them.

It is not easy to define the boundaries of this culture because the implements and ornaments that it produced are in many respects similar to some of those made by both the Algonkian and Iroquoian peoples in New York and the adjacent territory, but an examination of the mounds in the western portion of the State gives us certain facts upon which to base our observations. Even in a larger way the Ohio mounds afford us a basis for comparison.

New York mounds and the occupied sites contiguous to them, particularly those in Cattaraugus, Chautauqua, Erie and Livingston counties, indicate that the people of the mound culture used (1) platform pipes, (2) grooved axes, (3) celts, (4) adzes, (5) gouges, (6) gorgets, (7) banner stones, (8) boat stones, (9) bird stones, (10) stone tubes of several varieties, (11) native copper implements and ornaments such as chisels, celts, spearheads and arrowheads, beads, ear ornaments, etc., (12) numerous flint drills or perforators, (13) shell beads, (14) pearl beads, (15) mica ornaments, (16) bone and antler implements, (17) notched and triangular arrowheads and spearheads, (18) hematite articles, (19) pottery, (20) discoid stones, (21) concaved disks, (22) cylindrical and bell pestles, (23) were a village-dwelling people, (24) that they buried in small mounds, (25) cultivated corn and other vegetable foods and tobacco, (26) made woven fabrics.

The evidences of the mound culture are more numerous in extreme western New York than east of the Genesee river. The culture seems to have entered the State along the shores of Lake Erie and up from the Allegheny river. Chautauqua, Erie and Cattaraugus counties thus contain a larger number of mounds than do other portions of the State, though certain other sections, as the Genesee valley, have yielded relics in abundance.

The regions showing the greatest evidence of the mound culture are: (1) the south shore of Lake Erie from Westfield to the mouth of Cattaraugus creek, (2) the valley and terraces of the Cattaraugus to Gowanda, (3) the Allegheny valley, (4) the valley of Chautauqua lake and the Chadekoin river, (5) the Connewango valley, (6) the Cassadaga valley, (7) Clear Creek valley, (8) the valley of Buffalo creek, (9) the valley of Tonawanda creek eastward to the overland trails to the Genesee, (10) eastward along the Allegheny valley from Bradford northward along the tributaries, thence overland to the Genesee valley, (11) the Genesee valley from Portageville to the mouth of the river, (12) Irondequoit creek, (13) Canandaigua Lake valley, (14) the region of the Finger Lakes, to the Seneca river, (15) the valley of the Seneca river, (16) southward and about the southern shores of Oneida lake, (17) scattering relics along the Oswego river, (18) Jefferson county along the shores of Ontario and the lower waters of the neighboring creeks, (19) the St Lawrence valley, (20) south of the Finger Lakes, especially along the headstreams of the Susquehanna and of the Delaware are scattering relics, (21) portions of the Hudson valley, as near Athens.

Mound-culture Sites

Mounds in New York have had no systematic examinations despite the large amount of work done by amateurs in excavating them. It is safe to say that the possibility of making a methodical examination is now reduced by two-thirds, through the vandalism of inexperienced relic hunters. Many mounds have been scraped down merely to level the ground and others have been scraped into by spade and horse scraper to find what "valuables" they might contain. Few records have been kept and not all that have been made are reliable. An examination of the most reliable records available makes possible the descriptions of the typical mound-culture sites given below:

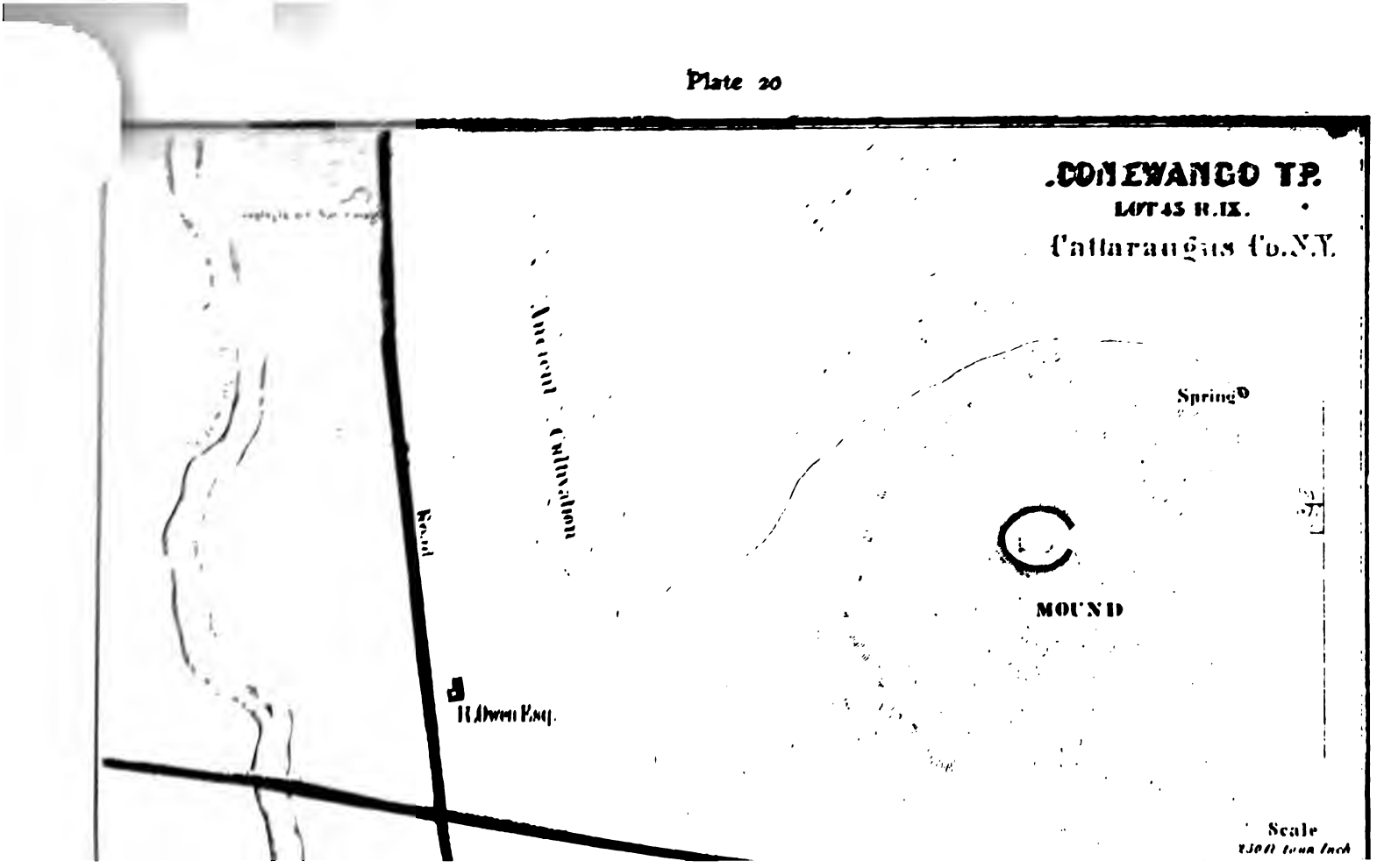
1 Mound on a terrace above the Conewango valley at Poland Center, Chautauqua county. This mound was first described by T. Apoleon Cheney in the 18th Report of the New York State Cabinet of National History for 1860.

When examined in 1905 the mound appeared to have been considerably demolished by excavations, but in size it still remained one of the two highest of which we have any knowledge within the State. It stands several rods back from the edge of the terrace and amid the gloom of a thick forest growth. It's still 9 or 10 feet in height and with a diameter of about 64 feet. There seem to be the remains of an outer wall and trench surrounding the mound, but the débris from excavations, the deep leaf mold and fallen trees make this difficult to determine. Some fragments of notched flints are to be found in the soil about the mound and it seems to lie in what was once a village site but on account of the character of the ground this is not easy to establish. Certain it is, however, that the flat land immediately below the terrace shows signs of occupation. Numerous celts, notched spears, soapstone pipe fragments, a beautifully formed stone tube and several gorgets have been found. The culture represented seems similar to that of the Ohio mound area. It is interesting to note that Cheney claims that eight skeletons buried in a sitting posture were excavated from this mound. Cheney's plan is shown in plate 20. Many of his speculations are specious.

Cheney's report on this site is as follows:

The tumulus, represented upon plate III, from the peculiar construction of the work and the character of its remains, appears to belong to a class of mounds different from any others embraced in this exploration. It is located upon the brow of a hill, still covered by the ancient forest, and overlooking the valley of the Conewango. This work has some appearance of being constructed with the ditch and vallum outside of the mound, as

Plate 20


CONEWANGO TP.
LOT 43 R.IX.
Cattaraugus Co.N.Y.
Spring
MOUND
Road
Scale

in the Druid Barrows, but perhaps more accurately belongs to the class composed of several stages, as the Trocalli of the valley of Anahuac. The form of the tumulus is of intermediate character between an ellipse and the parallelogram; the interior mound, at its base, has a major axis of 65 feet, while the minor axis is 61 feet, with an altitude above the first platform or embankment of 10 feet, or an entire elevation of some 13 feet. This embankment, with an entrance or gateway upon the east side 30 feet in width, has an entire circumference of 170 feet. As previously remarked, the work itself, as well as the eminence which it commands, and the ravine upon either side, are overshadowed by the dense forest. The remains of a fallen tree, imbedded in the surface of the mound and nearly decomposed, and which from appearance, had grown upon the apex, measured nearly 3 feet in diameter, and heavy timber was growing above the rich mold it had formed. Thus we had some indicia of the age of this work. The mound indeed, from the peculiar form of its construction, as well as from the character of its contents, has much resemblance to the Barrows of the earliest Celtic origin, in the Old World. In making an excavation, eight skeletons, buried in a sitting position and at regular intervals of space, so as to form a circle within the mound, were disinterred. Some slight appearance yet existed, to show that framework had inclosed the dead at the time of interment. These osteological remains were of very large size, but were so much decomposed that they mostly crumbled to dust. The relics of art here disclosed were also of a peculiar and interesting character — amulets, chisels &c., of elaborate workmanship, resembling the Mexican and Peruvian antiquities.

2 Burial mound on the south bank of the Cattaraugus creek in Chautauqua county, near Little Indian creek. This is just above the Gold diggings in Indian Mill gulf. The mound is one of the largest in the State but not more than 8 or 9 feet in height, though it shows evidence of having been plowed considerably.

It is about 30 feet in diameter. The fields about the mound show evidence of early occupancy, notched points of flint and chalcedony have been found. Several skeletons have been taken from the mound and E. R. Burmaster in 1914 sent the State Museum a fine skull from it. Accompanying relics are recorded to be four notched spears or knives, a copper chisel and a knobbed end lunate banner stone. The pottery is cord marked. During a visit to this mound with G. L. Tucker and E. R. Burmaster, the latter found half of a fish effigy.

The mound stands on the edge of the bluff and a portion has fallen over. Almost exactly north and across the Cattaraugus on the opposite and corresponding terrace are two other mounds. They are reached from the horseshoe bend of the Irving road by taking the road up the hill at this point. Doctor Benedict of Buffalo made some excavations here during 1901. The ground about the mound is strewn with flint chippings, and a number of arrow points, celts

and a pestle have been found. The excavation from which the earth was taken for building the mound is still visible to the north.

3 Near the mouth of the Cattaraugus on the north side are several large sites each covering from 50 to 100 acres. Several occupations are apparent, but the influence of the mound culture is plainly evident. On the site nearest the mouth of the creek was a mound since removed by the local sand company. Skeletons and portions of a buffalo skull were found by E. R. Burmaster in 1914.



(George L. Tucker, photo).

Fig. 10 View of the mound on the south side of the Cattaraugus, near gold mill

If

The adjacent village site has yielded innumerable notched sinkers, several bird stones, banner stones, celts, gouges, grooved and notched axes. Several broken monitor pipes, one complete form and one clay pipe and several fragments of thick cord-stamped pottery were found by Mr Burmaster. Chipped flints are numerous. The forms are notched arrow points of several types, scrapers, drills, spears and knives. Long flakes of chalcedony and jasper are also found.

4 A mound on a hilltop near Napoli, Cattaraugus county, had within it a stoned-up vault. Some of the flat stones yet remain but the mound has been nearly destroyed. Several gorgets, spears and celts were found within the vault by Dr Frederick Larkin early in the seventies of the last century. Doctor Larkin described the mound to me in 1905. He found human remains in the vault.

5 A mound burial near Tonawanda creek excavated by Jacob Doctor contained a banner stone, a bird stone, a bar amulet and two

Plate 21



Tubes and pipes from Mound Builder sites in New York

gorgets. The mound is about 4 feet high, 25 feet in diameter and situated on a gentle slope on the Tonawanda reservation, near Indian Falls, Genesee county. The neighboring fields yield numerous notched flint spearheads and arrow points.

6 An isolated burial near Athens, Greene county, and near the Hudson, contained a pendant gorget, more than one hundred native copper beads, globular shell beads and pendant columella. Burials here have yielded banner stones.

7 On the John F. White estate at Squawkie hill, Mount Morris, are three low mounds. All contained graves, boxed by stone slabs, the upper edges of which projected above the surface of the ground. These graves contained two highly polished and finely formed monitor pipes, many perforated pearls, two copper chisels, a copper double cymbal ear ornament held by hollow copper rivets, two gorgets, two celts and several finely chipped notched spears or knives. In the fields about the mounds have been found numerous flints, many celts and several grooved axes, cylindrical and bell pestles, notched choppers, broken and complete monitor pipes, and one stone pipe bowl. There are numerous other objects, as broken implements, hammerstones, anvils and notched sinkers.

8 Several graves have been found in a gravel bank near Vine Valley on Canandaigua lake. None of the graves was opened by experts and hence there was no opportunity for close observation. The specimens found in the graves, however, are of exceptional interest. From one grave was taken a large tablet gorget (see plate 22), a copper chisel blade, a segment of a mastodon ivory dagger, an antler awl, a pendant gorget of bone, a bar amulet, a broken bar amulet and two stone tubes (see plate 24). From another grave was taken a stone tube, two long strings of shell beads, and a chipped knife, 10 inches in length. Fragments of a large cord-marked pottery jar were found similar to the Irving pottery found by Mr Burmaster.

Most of the objects above described are in the New York State Museum collections, though Mr John F. White has most of the Mount Morris material. Unfortunately the finding of the skeletons in mounds and on mound sites in New York is usually done by those who fail to observe the relation of the specimens to the skeleton. At other times the skeleton is far too greatly decayed to permit any knowledge of the relative position of the object, and therefore a proper conjecture as to the use of the so-called problematical forms.

We are able to state, however, that some of these burials would be considered ordinary in Ohio. The pottery resembles Ohio mound

Plate 22



Articles from the Middlesex site. Bone pendant, antler awl, slate gorget, copper chisel and portion of ivory dagger blade.

pottery, though no complete vessels have been found. The culture is plainly derived from the Ohio region and southward. Numerous sites along the central Finger Lakes and along the Seneca river have yielded an abundance of polished slates similar to Ohio, Indiana, Michigan and other areas in the mound area. The region about Oneida lake is especially rich. One site near Brewerton has yielded more than twenty copper objects, many gorgets and several banner stones. The Bigelow collection in the State Museum, embracing more than ten thousand articles, has numerous polished slates from this vicinity.

If we were to trace the route taken by the people of the mound culture we should follow both the lake shore of Erie and the valley of the Allegheny. Perhaps the north shore of Lake Erie was also a route for we find abundance of polished slates in the sites upon which the Huron and the Neutral and the Iroquois later intruded. The southernmost division in New York, we would say, dwelt about Chautauqua lake and the valley of the Allegheny, with its tributaries. We thus find true mounds in Chautauqua, Cattaraugus and Erie counties. The southern bands along the Allegheny and the Cattaraugus perhaps found a portage or a short overland trail to the upper waters of the Genesee, and the more northerly along the Tonawanda creek to the lower Genesee. The Genesee valley throughout most of its length is rich in artifacts of this culture, and the routes we have pointed out pass over and through sites where such objects have been found.

Apparently the presence of mounds and the artifacts of the mound culture represent the expansion of the parent culture beyond the limits of its home. Whether this was due to simple migratory movements, to exploring bands, to expatriated tribesmen or the pressure of warring enemies it is difficult to state. Perhaps all these factors contributed to the expansion of the mound culture.

European articles have not been found in undisturbed mounds or sites of this culture in New York. There are, it is true, occasional intrusive burials in these sites, but all of them appear to be precolonial and pre-Iroquoian. Whether some of them were contemporaneous with an Algonkian culture is another problem. The weight of evidence seems to be that this is the case. Certainly the material culture of the eastern Algonkins seems to have been considerably modified by this culture, just as the later New England tribes were modified by the Iroquois. It is quite possible, therefore, that the mound culture people intruded into the hunting grounds of certain Algonkian bands and established themselves.

Plate 23



String of shell beads, elk teeth and shell disk from a site in Middlesex on Canandaigua lake

The accompanying map (plate 19) indicates the area occupied or influenced by the mound culture. It may be well to compare it with the map of the Algonkian occupation.

The mound-building people seem to have disappeared from New York at or before the time of the coming of the Iroquois into their recognized area of occupation. We can not be entirely sure, however, that all were driven out or exterminated. A survey of the earliest Iroquoian sites, especially in western New York, leads us to believe that the earliest Iroquoian immigrants were measurably influenced by the mound-building culture. This is so appreciable that one is led to consider three propositions as within the bounds of possibility: first, that the Iroquois were originally a part of the mound-building peoples who had separated themselves from the main cultural body; second, that the Iroquois in entering this region absorbed large numbers of the mound people and adopted certain of their culture traits and rejected others; third, that the early Iroquois were merely influenced at their early entrance by the mound culture.

Our present knowledge would lead us to conjecture that the Iroquoian hordes pushing up the Ohio came into conflict with the mound people and finally overcame them. We may then inquire whether or not the Catawba, Tutelo and Saponi do not represent the survivors of the vanquished peoples. We also pause to compare certain artifacts of the Muskhogean and early Cherokee with such mound objects, as the platform pipe. The earlier Iroquois sites frequently yield, especially in the graves, objects similar to those found in the mounds, but not gorgets, bird stones or related forms. To be explicit, the points of similarity between certain Iroquois forms and mound area forms, as between those of Ripley, N. Y., and Madisonville, Ohio, are certain pipes and certain pottery vessels. A prehistoric Iroquois site at Richmond Mills, N. Y., known as "The Old Indian Fort," has yielded metapodal scrapers, similar in every way to those found in Ohio mound sites. From these facts and from an examination of the entire field of the earlier Iroquoian occupation in New York and Ontario, we are led to believe that the Huron-Iroquois were the immediate successors of the mound-building people in this area. Our belief is confirmed by the abundance of polished slates in Ontario in close proximity to the later Huron-Neutral sites. This fact has confused some archeologists, and led to the statement that the polished slates are Huron or Neutral artifacts, but the graves of the two peoples tell different stories.

Plate 24



Articles from Middlesex site. Stone tubes, broken amulet, crude clay pipe, bar amulet, stone tube.

The Iroquois once established culturally, did not copy mound artifacts. Indeed, they seem to have deliberately avoided the use of the distinguishing badges of their vanquished foes. Just as the conquerors of the first mound people of Ohio beat up the mica ornaments and hammered into shapeless masses the copper tools and gorgets of their despised victims, so did the Iroquois taboo or avoid with deliberateness, the banner stone and the gorget and similar artifacts of polished slate.

Thus we may account for the difference between the pottery, decorative art, implements and earthworks of the Iroquois and their predecessors. This difference likewise makes it possible for us to define the polished slate area and at the same time to fix the limits of the Iroquoian.

One final observation remains to be made about the mound builders as a people. We are induced to believe that the period during which they occupied this region was a longer one than generally estimated. It appears as characteristic of a certain cultural development and then totally disappears.

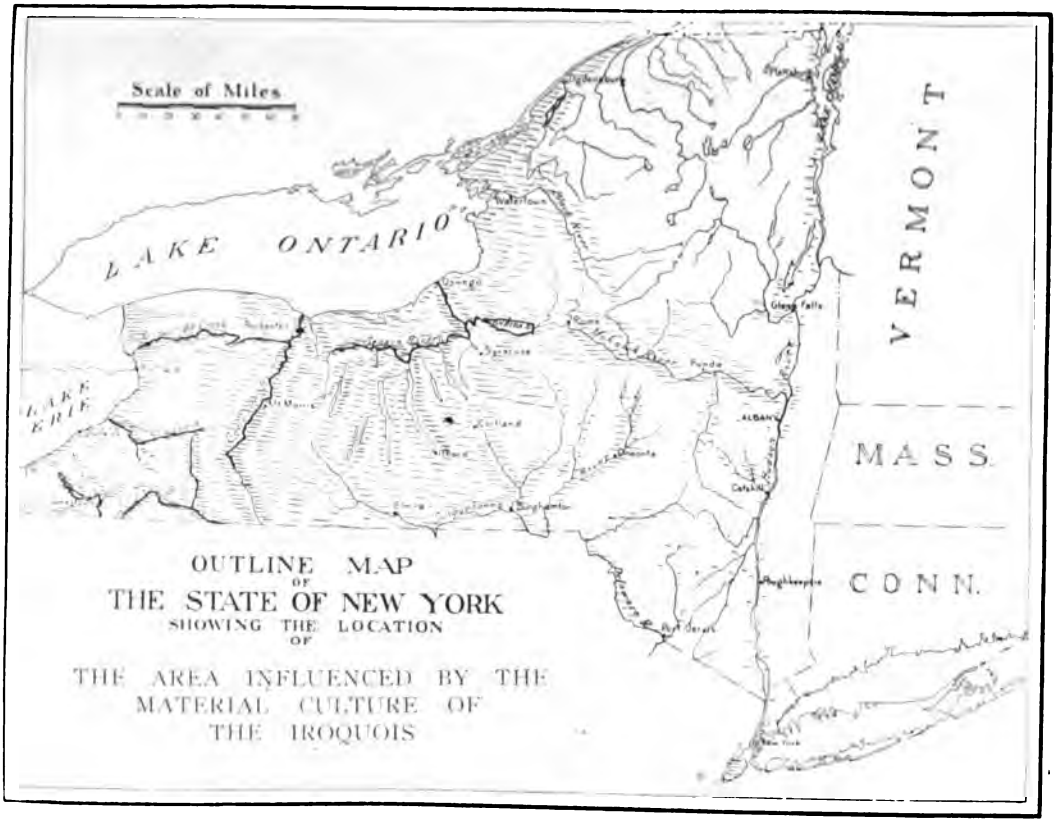
5 THE IROQUOIS OCCUPATION OF NEW YORK

The origin of Iroquoian material culture is a subject of pertinent interest to every student of aboriginal American archeology. This particular racial stock, characterized by so many striking features, has long held the attention of historians and archeologists, but hitherto no one has attempted an analytical study of Iroquoian archeology or sought to correlate its salient facts. Much remains to be discovered, it is true, but we believe that we may now safely attempt to define the material culture of the Iroquois, so far as we may know it through archeology, and to make some intelligent inquiry into the origin of the culture as well as of the stock itself. By making this start, however faulty it may be, we hope to suggest lines of inquiry that may lead others to the discovery of facts that will point out a full solution.

Most writers have observed that there are few places where Iroquoian artifacts are found unmixed with evidence of contact with the European. The few early sites, of precolonial occupation, therefore are most instructive to the investigator, but, as a matter of fact, the purely aboriginal material found in such sites differs but slightly from those of later date, except those of a very recent

[1] From the author's article in The American Anthropologist, v. 18, no. 4, Oct.—Dec. 1916.

Plate 25


Scale of Miles
LAKE ONTARIO
LAKE ERIE
VERMONT
MASS.
CONN.
ALBANY
OUTLINE MAP
OF
THE STATE OF NEW YORK
SHOWING THE LOCATION
OF
THE AREA INFLUENCED BY THE
MATERIAL CULTURE OF
THE IROQUOIS

period. The archeology of the Ouendat or Huron is apparently quite similar to that of the confederate Iroquois.

In pursuing our inquiry it is soon discovered that there are definite centers in which material known to be, or termed, Iroquoian may be found. In scattered spots edging these centers are isolated Iroquoian specimens, as on Manhattan island. But the fact remains that Iroquoian artifacts are found in numbers only within certain definite centralized localities, and that these objects are not seemingly more than 500 or 600 years old. Many sites show an age of less than 150 years. At most, let us say tentatively, that within the well-recognized areas, objects recognized as Iroquoian seem only to indicate a period of cultural fixedness of less than 600 years.

The centers of prehistoric Iroquoian occupation, recognized as such by the objects known to archeologists as Iroquoian, are: (1) the St Lawrence basin with Montreal as a center, (2) the region between Georgian bay and Ontario with Lake Simcoe as a center, (3) the Niagara peninsula in Ontario following the Grand river, (4) the Genesee river-Finger Lakes region, (5) Chautauqua county, stretching across the Pennsylvania neck into Ohio, (6) the highlands east of Lake Ontario in Jefferson county, (7) Oneida, Madison and Onondaga counties, (8) the Susquehanna about Elmira, (9) the Mohawk valley and highlands to the north, and (10) Niagara, Erie, Chautauqua and Genesee counties. Circles of various circumference may be drawn from these centers, and intercept smaller centers. This plan of approximating the areas is only a scheme to fix the localities in our minds, and no attempt is made to make them independent localities with definite boundaries. The contour of the land, streams, lakes, lines of travel and danger from enemies largely determined the early limitations.

We wish now to inquire which of these centers are the oldest and if there is any possible means of determining the causes that made Iroquoian material culture differ from the surrounding Algonkian. We wish to inquire, as others have before us, whence the Iroquois stock came into these centers and what clue may be found showing a migration from earlier centers. We wish to inquire just how definitely valuable Iroquoian objects, as they are now recognized, are in determining a migration from other regions.

Perhaps, then, we ought first to inquire just how permanent any form of material culture is and whether there have been any revolutions, not to say modification, in the material culture of a stock. We ought to consider that there are Algonkian tribes, for example, that are Siouan in culture and Siouan tribes that are Algonkian, as the Blackfeet and Winnebago respectively.

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(5) Chautauqua county, stretch-
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uehanna about Elmira, (9) the
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Types of shell objects from New York

1, tubular beads, Honeoye Falls, Dann site; 2, shell pins, Dann site; 3, runtee, Onondaga co.; 4, perforated disk, 5, runtee, West Bloomfield; 6, pendant, Dann site; 7, 8, 9, ornaments, Dann site; 10, triangle, West Bloomfield, Warren site; 11, discoid beads, Young farm site, Ripley; 12, heavy bead, Dann site; 13, crescent; 14, spherical bead; 15, ornamented disk Seneca river; 16, disk from Ithaca.

The writer at one time showed some of the Lafitau drawings of Iroquoian villages to Edward Cornplanter, a Seneca Indian, who was a tribal authority on the modern religious ceremonies of his tribe. "Our people never lived that way," he said. In this it is seen that the Iroquois of today have totally forgotten their early fortifications and architecture, though Cusick in 1825 wrote of "forts." Of another native authority the writer asked the date when the Iroquois confederacy originated; "With the teachings of our great ancestor, Handsome Lake, I think," he said. Then he added after hesitation, "No, it was before that, I remember now it was in the time of Dekanawida."

In these answers, incorrect or uncertain as they are, may be found material for serious consideration. They point out two men with whose names are linked two distinct periods of cultural revolution. Each blotted out the memory of a former period. The people of each period systematically forgot the history of the preceding periods. Today the Iroquois of New York base nearly all of their tribal ceremonies on the doctrines of Handsome Lake, who flourished between 1800 and 1816. So great was the influence of his teaching that he practically created and crystallized a new system of tribal thought and a new plan of action. His earlier predecessor was Dekanawida to whom, with the aid of Hiawatha, is ascribed the origin of the Iroquois confederacy. Dekanawida so crystallized the things of the older period with his own devices, teachings and admonitions that the methods, beliefs and thought-ways of the preceding period lost their identity in the minds of the Iroquois people. All civic and much of the religious thought centered in Dekanawida. That which preceded was either blotted out or swallowed up. The Iroquois took on a new mantle. Now it does not seem impossible that before the time of Dekanawida and Hiawatha, other seers had risen to change or revolutionize the thought-ways of this stock.

The inquiry comes quite naturally, therefore, as to whether a like revolution could not come in the material culture of a people. Might not the older systems of decorative art have been gradually abandoned and new ones taken on? Preceding the period beginning about 600 or 650 years ago, might not Iroquois art and artifacts have been different? Or if there were no Iroquois in this region then might not they have had differently decorated pottery, for example, when they came than that later developed and now known as Iroquoian? This is a question archeology may some day answer. Our present knowledge gives us only the Iroquois potsherd and does not tell us why it is as it is.

Plate 27



Clay vessel from Theresa, Jefferson county. Found in a rock crevice by Percy Purdy.

There are certain Iroquoian traditions that seem to have good foundation, relating that at a certain period all the Iroquois were one people, living together and speaking the same tongue. Indeed so positive were the Iroquois of this that they could point out a certain woman and say that she represented the lineal descendent of the first Iroquoian family. Yet the confederate Iroquois knew that she did not belong in the five tribes. She was a Neuter woman. "When the bands divided," the tradition runs, "it was found that the family of Djigonsase (Fat Face or Wild Cat) fell to the Neuter Nation." She was called Ye-gowane, The Great Woman, and she was "the mother of the nations." In the Dekanawida-Hiawatha tradition, a woman with this title is represented as being constantly consulted by both Hiawatha and Dekanawida. The latter was a Wyandot (Ouendat) from the Bay of Quinte, at the head of Lake Ontario. This points to an early recognition of blood relationship and a recollection of the time when the Erie, Neuter, Huron, Seneca and Mohawk–Onondaga were of one common tribe, a fact that archeology and philology, of course, definitely prove.

In this original tribe any culture revolution would definitely influence the various subdivisions and be carried by each as it separated eventually from the parent body. Constant intercourse would serve to preserve the culture until it became fixed. Now, assuming for the sake of argument that there was an "original tribe" and that a revolution did take place in the decorative art of the Huron-Iroquois, whence did that tribe come and when did its arts change? Traditions, again, point to a migration from the "southwest. Ethnologists are familiar with the Delaware Walum Olum, but few are familiar with Iroquois migration myths for the reason that they are few and those brief and difficult to recognize as such.[1] So many of the Iroquois (confederated) myths point to the southwest country, however, that we must pause to consider just why they have been handed down. We must ask why the "tree of the long swordlike leaves," is mentioned so often in the Dekanawida epic, and why so learned an Iroquois as Dr Peter Wilson called it a "palm tree." We must consider why so many Iroquois expeditions were directed against enemies down the Ohio and on the Mississippi. We must consider, too, a certain alleged grammatical resemblance between the Caddoan languages and the Iroquoian. Perhaps all these considerations will be termed fanciful and lacking serious

[1] We place no credence in the Cusick account as embraced in his "Sketches of the Ancient History of the Six Nations."

Plate 28



THE SACANDAGA VALLEY POT

Iroquoian pottery vessel from the Sacandaga valley. Found in a rock shelter. **Size:** 10½ inches high. An interesting feature is the presence of three raised points instead of the four usually found on Iroquois pottery.

value, but even if this is admitted they do have the certain virtue of stimulating inquiry.

The older theory that the Iroquois originated or had their early home along the St Lawrence, about Montreal, is not entirely without serious flaws. I believe from archeological evidence that certain Iroquoian tribes never came from the St Lawrence region; for example, the Seneca. The Seneca and Erie divisions seem to have been as closely allied in western New York as the Onondaga and Mohawk were in northern and eastern New York. The Mohawk (or Laurentian Iroquois) never agreed with the Senecan division and there indeed seems to have been a long period of separation that made these two dialects more unlike than all the others of the five. It would seem that the early band of Iroquois had divided at the Detroit or the Niagara rivers, one passing over and coursing the northern shores and the other continuing on the southern shores of Erie and Ontario; and that the northern branch became the Huron and Mohawk–Onondaga; that those who coursed south of these lakes became the Seneca–Erie, the Conestoga (Andaste) and the Susquehannock. It also appears that the Cherokee and Tuscarora separated earlier than the Seneca and Huron-Mohawk divisions and perhaps absorbed other non-Iroquoian bands, still further modifying their vocabularies.

In the analysis that follows we shall briefly consider the material culture of the Iroquois. In the topical discussion we have repeated certain facts mentioned elsewhere, not for the sake of emphasis only but to obtain another view of the same facts, when differently correlated.

An Outline of Iroquoian Material Culture, Based on Archeological Evidence

In considering the origin of the Iroquois, their migration and their connection with and similarity to other tribes or stocks, it is of importance to know just what is typically Iroquoian; that is to say, what implements or ornaments may be regarded as distinctive.

Arrowheads. The first object which a field investigator learns to know, as the sign of Iroquoian occupation, is the thin, triangular arrowhead of chert. Nearly all Iroquois arrow points seem to have been of this type. On village, on camp site, or in graves the delicately chipped triangle is found almost to the exclusion of all other forms. It may not be regarded, therefore,

as only a " war point " but also as a hunting point. Plenty of knives are found on Iroquoian village sites, but only a few chipped implements that may be regarded as spearheads. Very few flint drills are found in comparison with other occupations. The same remark is also true of scrapers, although these are found occasionally. The Iroquois were not flint workers as were their predecessors in this region; they used other material in place of flint wherever possible.

Polished stone implements. The celt, better termed the ungrooved axe and the flat-bellied adz, were used by the Iroquois who seem never to have used the grooved axe. Their ungrooved axes, however, are well made and both types are, in many instances, carefully polished. The small celts and adzes are common and seem to have been used as chisels and scrapers rather than as axes. In many instances these are simply waterwashed stones suitably shaped by nature and rubbed to a cutting edge. The Iroquois seem never, or rarely, to have used gouges. They had perforated polished stone beads but no gorgets, stone tubes, bird stones or banner stones. This is so common an observation on the part of the archeologist that it may be safely said that no ancient polished stone implement with a hole drilled straight through it is Iroquoian. There were, indeed, polished stone pipes but no straight pipes. We except also stone beads and occasional small stone faces.

Stone tools. The Iroquois along the Susquehanna may have used stone hoes but the various overlapping occupations render this doubtful. It is certain, however, that the Iroquois did not generally use the long cylindrical roller pestle, but some have been found on early sites. They did use a flattened muller and a shallow, flattened mortar or meal stone, and these are common on nearly all Iroquoian sites (see plate 8).

Notched sinkers are very common and generally were made of a flattened water-washed stone, about the size and shape of the palm of the hand, though various sizes larger or smaller are found.

Pitted stones are abundant. Some appear to have been hammers, judging from the battered edges, but others are pitted on either side and show no battering on the edges. Some of the pits are neatly and symmetrically drilled, others roughly picked in as if a flint had been pounded against the stone. This is especially noticeable in the softer stones. Other hammers are of diabase, granite or other hard rock and have no pits. Their battered sides, some in flattened planes or faces, others rounded, give evidence of hard and prolonged usage.

Anvils, that is flat stones upon which stone was hammered, are fairly common. Now and then an arrow shaft rubber is found and plenty of scratched stones, or "awl sharpeners," are in evidence and an occasional "sinew stone" comes to light.

Shell ornaments. The later Iroquois loved shell ornaments, such as beads, perforated shells, runtees and disks, masketts and variously

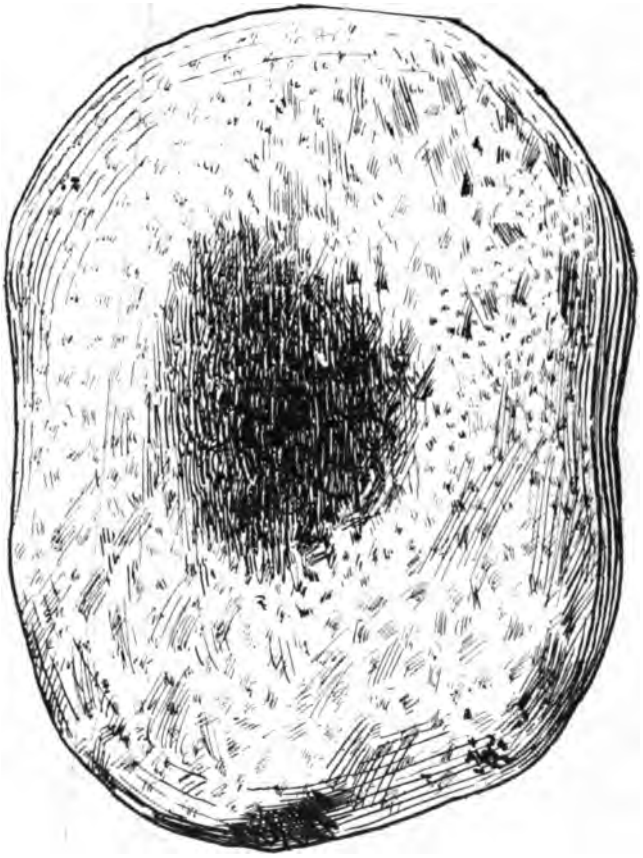


Fig. 11 Pitted hammerstone and small anvil

formed effigies, but they did not have them in any abundance until the coming of the white man. Shell beads of spherical shape. cylindrical, or even discoidal appear on early sites, most of them made from the columella of the conch. Perforated periwinkles also were used but only a few beads small enough to be similar to the wampum of the colonial period have been found, compared with

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Plate 29



Types of pottery vessels from the [illegible] county

the abundance that later appeared. Large conch shells have been found on certain Neuter sites, especially in Erie and Genesee counties. Now and then a clam shell is found used possibly as a potter's tool. The fresh-water Unio valve was frequently employed for this purpose and they are sometimes found in pits filled with clay scraped in shaping a pot.

Pottery. The most strikingly characteristic product of Iroquoian manufacture is pottery. Both in form and decoration, generally speaking, Huron–Iroquois pottery differs from that found in other regions. At the same time we must qualify a statement of an absolute difference from all others, for on certain sites pottery is found that resembles, in many respects, the pottery of the Ohio village sites, and even certain pottery of Tennessee, but this is the exception and not the rule.

Typical Iroquoian pottery is known both by its shape and by its decoration. The typical pot has a globular body which as it turns inward toward the top, turns upward and outward into a constricted neck, and a flaring or overhanging collar. The width of the neck at its base is about one-sixth of the circumstance of the body and it rises as if from the top of an imaginary hexagon drawn inside the globe. From the top of the neck, which turns outward like the bell of a trumpet, rises a collar, sometimes round but as often four-sided and having an upward turn at each corner. This collar is nearly always decorated by a series of triangles within which have been drawn lines close together and parallel with one side of the triangle. These triangles contrast with one another as the parallel lines slant obliquely, either right or left, in the adjacent space. At the corners pentagonal figures are often drawn having three round dots punched in to make a conventional human face (eyes and mouth). In a few instances the face stands out in effigy or an entire human figure more or less conventionalized is drawn. (See plate 27.) There are instances where these triangular parallel lines are absent and where the overhanging collar is rare. Certain of the earlier forms of Iroquois pottery have very little of this lined decoration, as in the case of the Ripley site. In other cases, as at Burning Springs, the Gerry village and at the Reed fort, the incised lines appear but they run in wider patterns and far down the wide neck, which is not so constricted as in the Mohawk valley forms. Another variation is that of a globular squatty bowl with a short neck that turns outward in a rim that is notched, indented,

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POTTERY VESSELS FROM THE DANN SITE, MONROE COUN

The handles on these pots are similar to lower Ohio forms. two explanations for this occurrence, one that the vessels were f an excursion, and second, that they were made by captives. seem probable .that pots of this form were made by the Seneca pied the Dann site, circa 1660-90.

Plate 31



Animal effigy pipes from the Dann collection, Honeoye Falls. The two larger pipes at the top have brass or copper eyes.

knobbed or scalloped. This type is found on the Silverheels site, the Gus Warren site and at White Haven, Pennsylvania. A few Iroquois pots had pitcher noses. Some of these have been found near Buffalo, at Ripley and in Jefferson county near Watertown. The pitcher nose may or may not be a development from one of the four corners of the square-topped type (see plate 27). Other pots have small handles that unite the collar with the neck or body of the vessel. Such have been found on certain sites near Buffalo, at Ripley and in Jefferson county. More have been found in the last place than elsewhere. Now and then seemingly aberrant forms are found. At Ripley bowls were found that differed in no way from those in the mound-builder villages of Ohio. They bear no resemblance to any known Iroquois type but have a rather long oval body with a wide flaring mouth. Some are low and like a modern bowl. The surface was scratched and roughened in pseudo-fabric lines or scratched with a twig brush. Two or three peculiar bowls were found on the Dann site that approximate certain Missouri forms. The bowls are squat and a wide flaring mouth rises from just above half the diameter. Three or four flattened handles unite the underside of the lip with the body of the vessel. The flattened handle is unique on this site, which, however, yields European objects. (Plate 30.)

Pottery pipes. Equally, if not more striking than the pottery vessel, are clay pipes. These are usually gracefully modeled and have stems from 3 to 10 inches in length. The general base line of these pipes is one that follows the line formed by the forefinger and thumb when the thumb is extended at right angles to the hand and the ball turned back. This is the lower line of the trumpet pipe. Iroquois pipes sometimes have bowls imitating the tops of pots. In other instances the bowls imitate the bodies or heads of birds, animals or snakes. Many have the chevron pattern of parallel lines arranged in triangles about the bowl top. Some of the patterns widely found throughout the Iroquoian area are the trumpet form, the square-topped flaring bowl, the cylindrical bowl having a wide collar decorated with parallel rings, the bird body, with the bowl in the bird's back, the effigy of a man with his hands to his mouth blowing through his lips, animal heads, as of the bear, racoon or fox, and pipes having a human head modeled on the bowl. Certain types are shown in plates 31 and 32.

Plate 32



Types of effigy pipes from the Dann collection, Honeoye Falls

Pipes of stone sometimes have stems carved with the bowl, but these form the minority in collections. Some resemble the outlines of simple clay pipes, others do not.

Some bowls are oval, some are vase or urn-shaped. More elaborate forms resemble bird bodies, as the owl, or represent a lizard or other creature crawling over an oval or bowl. None of the Iroquois stone pipes are tubular and none have the monitor base, common in the mound-builder region. Many are so unlike their clay pipes that they bear no suggestion of having been made by the same people. The outline, decoration, modeling and size differ, even though found in the same grave or village site with clay pipes. Stone pipes of all the forms mentioned are found in prehistoric Iroquoian sites as well as those of the late colonial period so that their form and use may be regarded as stable and widely known.

Bone implements. Among the most common bone articles are bone awls and awl forms and cylindrical bone heads. The latter are usually made of hollow bird bones and many are beautifully polished. There were bone needles and shuttles. Bone phlanges, cut or ground on one side, or shaped as cone-pendants, are found in abundance. The canine teeth or tusks of bears and wolves perforated for suspension seem to have been favorite decorations, and the much prized elk tooth is found. Bear teeth were ground sharp for knives or scrapers, and beaver teeth were shaped for scrapers. The molars of the bear were ground down and with one root cut off, were shaped like a human foot. Perforated disks cut from the human skull were also used, but aside from this human bones were seldom employed.

In certain early sites, as on the Reed farm, near Richmond Mills, bone scrapers or beaming tools are found made from metapodial bones of deer or elk. These are similar in every way to those found in certain Ohio sites not Iroquoian.

Bone implements are commonly found in Iroquoian village sites, especially in ash and refuse heaps or pits. The ashes seem to have acted as a special preservative.

Miscellaneous bone objects. Among the more striking implements of bone are bone combs, the earlier forms resembling a modern fork and having only three or four large teeth, perhaps one-sixteenth of an inch in diameter or more. The tops are usually plain, although in a few instances there is a simple perforation. As the colonial period is approached the combs become wider and have



CERTAIN BONE ARTICLES FROM NEW YORK. X 7-10

1, notched end punch, Watertown; 2, perforated awl, Watertown; 3. ıtler punch or plug, Jefferson co.; 4, bone spear head, Rutland, Jefferson ·.; 5, antler cylinder, Monroe co.; 6, bone whistle, Seneca river; 7, fish-ook, Watertown; 8, raccoon bone worked as an awl, Jefferson co.; 9. ıtched end bead, Richmond Mills; 10, typical bone bead, Jefferson co.



FROM NEW YORK. X 7-10
VII; 2, perforated awl, Watertown;
; 4, bone spear head, Rutland, Jeffer
; 6, bone whistle, Seneca river; 7, bi
worked as an awl, Jefferson co.
typical bone bead, Jefferson co.

more teeth. Decoration at the top is at first simple and quite lacking. With the coming of cutting implements combs take on an entirely new form, resembling in general motive a lady's back comb of modern times. These have from fifteen to forty teeth, generally 2 inches long, above which rises a decorative top or handle upon which are fretted out the effigies of various birds or the human figure. Combs of this character are found in many of the sites of the middle colonial period.

Small effigies of animals were sometimes cut out of flat bone and larger effigies of the human figure were carved from heavier bone. Some of these are apparently precolonial. The modern Seneca say that their ancestors carved small images of the human figure to represent a witch and by placing them in a bag or other receptacle were able to prevent the evil influence of the witch after which the effigies were named (see figure 12).

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The carapace of the tortoise or box turtle is commonly found in graves and fragments are sometimes found pits. Sometimes the shell is perforated with seven or e



Fig. 13. Tortoise rattle from Silverheels site

These may have been used either as knee rattles or as h carried in some of the ceremonies (see figure 13).

It is not uncommon to find arrowheads of both bone and it is quite likely that the Iroquois used projectile material wherever possible. It is said by the modern



Certain forms of precontact antler combs. Iroquoian. x 1/1
1, Atwell site, Madison co.; 2, Elbridge, Onondaga co.; 3, Pompey; 4. McArthur farm, Le Roy. All are Iroquoian.

some of their arrows were headed only with a sharp point formed directly on the shaft and hardened by semicharring. Harpoons were made of bone and sometimes there are several barbs, quite unlike, however, the barbs in the European spear.

Fishhooks were of the simple hook type without a barb and resemble in every way the fish hooks found in the Ohio village sites,



Fig. 14 Types of bone fishhooks from Richmond Mills, Ontario County. Dewey coll. State Museum. x1.



Fig 15 Beaver tooth with bone handle found by C. B. Moore, Kentucky. This suggests how worked beaver teeth found in New York may have been employed. x7/8

as at Madisonville (see figure 14). Occasionally bone whistles are found made from the long leg bone of some bird or the wing bone of a wild turkey (see plate 33).

Earthworks. No adequate idea of the prehistoric Iroquois can be had without some description or mention of their earthworks. Scattered through the western and northern portion of the State of New York are more than 100 earth embankments, ditches and circular inclosures. Most of these were probably not erected in any sense

as earthworks but simply as the bases for a stockaded wall. Tree trunks from 15 to 20 feet high were trimmed off and placed from 6 inches to a foot in a shallow ditch in the top of the wall and the earth was packed in about them. The tops were further secured by being tied together with bark ropes and withes. There are good historic descriptions of these palisaded inclosures. The area within them ranges from one-eighth of an acre to more than 7 or 8 or even 16 and it is supposed that they contained fortified villages or were places of refuge against both human and beast enemies. They do not differ in any way from the stockaded inclosures of the province of Ontario, in the Huron–Iroquois area. In some instances they do not materially differ from the earth inclosures found throughout Ohio. It may be said, however, that none of them are so extensive in size as such works as Fort Ancient, nor are the embankments more than 3 or 4 feet high, except in rare instances.

There are three general forms of the stockaded inclosure, the first being the hilltop stronghold which was naturally fortified on all sides and the narrow neck that connected the out-jutting hill with the general terrace of which it formed a part shut off with a palisaded wall. Deep ravines on either side brought natural protection from the sudden onslaught of enemies and the places were rendered further secure by having the neck protected by a stockaded wall and perhaps an outer ditch. The ditch served two purposes. It afforded the material out of which the wall was erected and it made it more difficult for the enemy to climb the stockade or to set fire to its base. Typical hilltop strongholds are those at Ellington, Chautauqua county, the Reed fort near Richmond Mills, Ontario county, the fort near Portage in Wyoming county and the prehistoric Mohawk site at Garoga.

A second form of protected inclosure is irregular in form and follows somewhat the natural line of the ground. It may or may not be upon a hilltop. Examples of this form are found on Indian hill near Ellington, the stockade near Livonia, Livingston county, known as the Tram site, and near Macomb, St Lawrence county, on the farm of William Houghton, near Birch creek, and Fort hill, Auburn.

A third form is in inclosure more or less circular in form with a low wall and shallow outer ditch. Examples of these are such inclosures as are found at Oakfield, Genesee county;[1] at Elbridge, Onondaga county, where there is a circular inclosure covering about

[1] These inclose about 10 acres of land and were described by Squier, figure 8, in his plate.

Plate 35



Antler combs. Later Iroquois types, from the Dann site, Honeoye Falls.

3 acres of ground; or the circular fort on the Lawrence farm in the Clear creek valley, near Ellington.

Usually within these inclosures pits are found in which refuse had been deposited or corn stored. The soil shows more or less trace of occupation and occasionally graves are found in one portion. Besides the choice of the spot as a natural defense there were other considerations, such as proximity to good agricultural land which, for primitive people with inadequate tools, must be a light sandy loam; a plentiful supply of water, nearness to the proper kind of timber and a location near a trail or stream navigable for canoes. It is not easy to determine, however, why some localities were chosen, for they are overlooked by hills from which the enemy could assail the fortification or are situated in swamp lands. There were probably many considerations that attracted the Indians to these spots that have been obliterated with the destruction of the forests.

The earlier sites of this character in the Iroquois district in New York were upon the hilly lands south of the Great Lakes. It does not appear that the Iroquois came down from their hilltop strongholds except in few remote localities until about the beginning of the historic period when they began to build their towns on the lowlands nearer the shores of Lakes Erie and Ontario. This observation is especially true in western and central New York but does not fully apply to the Iroquoian area in Jefferson county. It is quite likely that the Iroquois did not drive out all their enemies or take full possession of this territory until a short period before the opening of the colonial epoch. An example of village sites or earthworks upon or near the lake shores is that found at Ripley, Chautauqua county. Most villages, however, were from 2 to 20 miles back from the shores of Lakes Erie or Ontario.

Mortuary customs. There seems to have been several mortuary customs. Many human remains are found buried beneath the ground, indicating that the body was intact when interred. Traditions and historical evidence point out also the custom of placing the body wrapped in blankets or skins in the branches of large trees, and there are preserved in the Seneca tongue the various terms employed to describe the details of this type of burial. Burial houses were also erected in which the bodies of the dead were placed until decay had reduced them to bones. For the disposal of these bones research shows that they were gathered up and buried in bundles in separate graves. Sometimes several skeletons are found in bundles

Plate 36



CERTAIN FORMS OF WORKED TEETH FROM EARLY IROQUOIAN SITES IN ONTARIO AND JEFFERSON COUNTIES. X⅞

1, bear teeth, Richmond Mills; 2, bear tusks neatly cut, Brewerton; 3, various canine teeth; 4, Morse farm, Watertown; 5, elk teeth, Richmond Mills; 6, imitation elk tooth, Richmond Mills; 7, worked bear molars, the last being carved to resemble a human foot; 8, split and edged beaver incisors, Rodman, Jefferson co.

rave, with or without accompanying relics, as pots, c.

is, especially the Neuter nation, the Huron and per- also had ossuaries in which from ten to fifty or one ins were placed. Few relics are ever found in ossua- lier period. In the individual burial, where the body act in the grave, the position of the remains is almost one side with the knees drawn toward the face and the ear the face, this fixed position being that assumed by on, drawn up to keep warm (see plate 38).

ier graves there are few material objects, but as ed into the colonial period more durable relics are ig the gradual growth of prosperity, and a greater material property. The burial objects that have sur- ients, are clay pots, clay and stone pipes, flint objects, ngular points, celts, bone objects, shell objects, etc. ally found near the chest, hands or head. Among the roquois graves and skeletons found by the writer not ound " sitting up " and among the thousands or more discovered, none was sitting up nor did the bones n exposure to the air." The Iroquois had no definite r the grave, no special side; the only general rule ed position reclining on one side.

essors of the Iroquois had also this rule though the e stone graves sometimes placed their dead lying n the back.

us observations. The Iroquois did not use vessels of heir carved wooden bowls of the longer type were them in the sense of having handles or lugs at



tiles have never received a careful study, for they are ut the people wore nets, bags, belts and even shoes. sk sandals differ a little from the sandals or mocas- he caves of Missouri. Small fragments of cloth and ove that they early understood weaving and basketry. s carved wood and indeed the confederate Iroquois at the national feast bowl should represent a beaver. aking receptacles resembling animals with their backs wed out was common. Their wooden spoons had like clam shells and at the top of the handle was

Plate 37

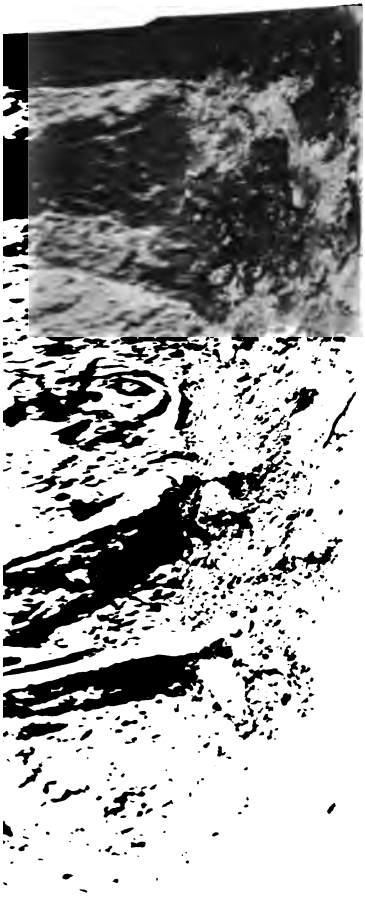


Antler combs. Later Iroquois type. Dann site, Honeoye Falls.

Plate 38



Typical flexed burial in the Silverheels site. There is a pottery vessel and a pipe before the face.



rheels site. There is a pottery

Plate 39



Cache of charred acorns found at the Silverheels site. Below t
were found the scattered bones of a disturbed burial.

or animal strikingly like those they modeled on pipes

is were an agricultural people of village dwellers. villages were on hills overlooking valleys and were e early villages had earth rings about them and some- ditch. Upon the ring or wall of earth the palisades Later villages were in the valleys beside lakes and



g. 16 Wooden spoon from Belvidere. Found George L. Tucker in a Seneca grave.

re not stockaded. The Iroquois towns of the sixteenth h centuries were increasingly without such a wall. d not build mounds, of the character known through- Visconsin, at least when they used the pottery and described.

ses were of bark and there were large communal ny of them held from five to twelve families or more.

se those they modeled on pipes

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in the valleys beside lakes and

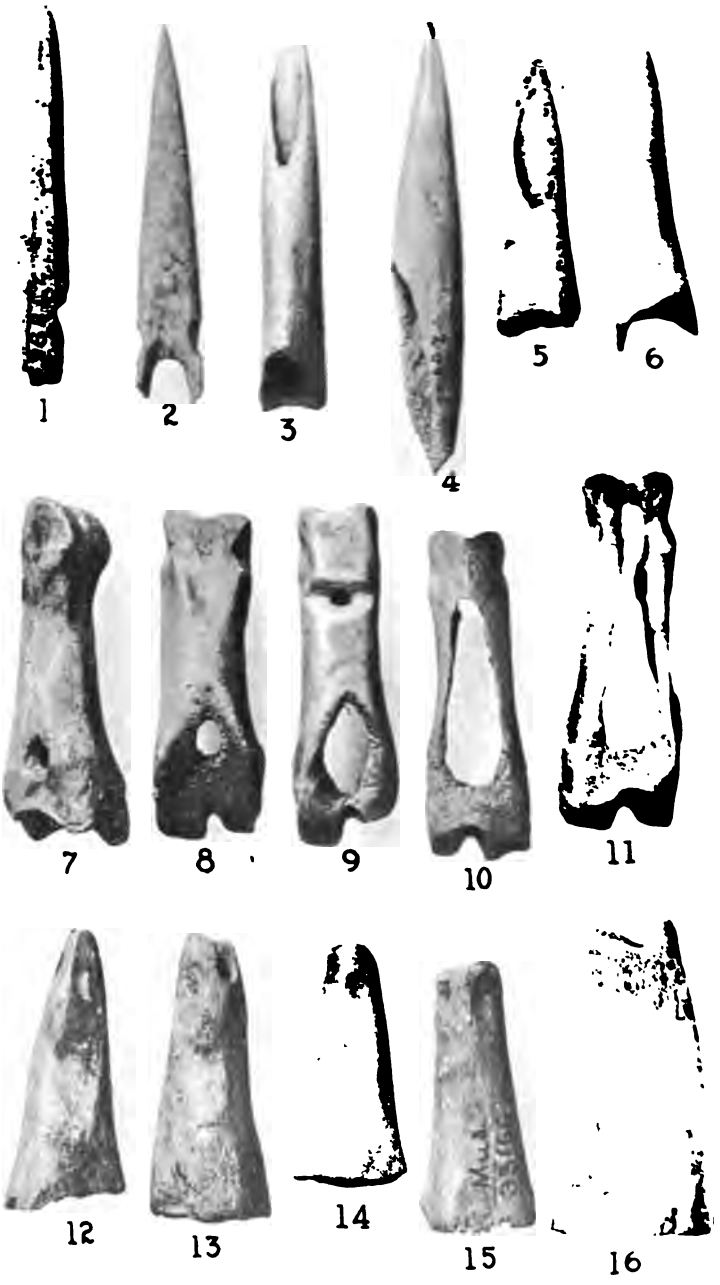


on from Belvidere. Found
in a Seneca grave.

The Iroquois towns of the sixteen
increasingly without such a wa
ds, of the character known throug
st when they used the pottery a

rk and there were large commu
from five to twelve families or mor

Plate 40



BONE ARROWHEADS AND WORKED PHALANGES. X 9-10

1, 2, flat projectile points, Jefferson co.; 3, 5, hollow bone points; 4 antler points; 7, 11, worked phalanges; 12, 15, worked phalanges perfora at smaller end; 16, inscribed phalangeal bone, Onondaga co.

ither a rounded or pitched roof with openings at the top,
r each fire beneath. The Iroquois did not ordinarily
conical skin tepee.

anency of their village life is indicated in a measure by
elds of corn and other vegetables. Agriculture exercised
: influence over their national life and it was pursued
d and on a large scale. There are accounts of expedi-
ut to procure new seeds and vegetable foods. Corn pits
und in village sites.

consanguinity was matriarchal. There were various
g animal symbols and names. The women nominated
hems and could veto the acts of the tribal council.

uois cosmogony relates that a pregnant woman fell from
world. She fell upon the back of a great turtle and
o a female child. This child grew quickly to maturity
rth to two sons, good minded and evil minded, or more
ght one and Dark one. The Light or shiny one molded
eing his own reflection in the water. He found his father
the top of a mountain that rose from the sea " to the
egged certain gifts from him, which were given, tied up
:aching his homeland again, the Light one opened them
animals and birds of all kinds, trees and plants. The
he two boys died in giving them birth, killed by Dark
Varty (Flinty), who insisted in emerging through her
e grandmother nursed the boys and bade them watch
's grave. The food plants and tobacco sprang from her
sun and moon in other versions were made from her
nd limbs.

l Iroquois legends relate to incidents of the southwest.
itions are told about, that relate to the country down the
Few stories of the north are related. The north was
l of great terrors and savage giants.

of the Iroquoian Culture With That of Surrounding Tribes

:n seen in the foregoing description, outlining the mate-
of the Iroquois, there are certain definite things which
their handiwork. The Algonkian tribes, in some
:cted earthworks or stockaded inclosures but apparently
xtent than the Iroquois. In this respect the Iroquois
resemble the Indians of Ohio and the southern states.
:eption of the size and height of the walls their earthen
e do not greatly depart from certain Ohio forms. The

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a measure by
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or shiny one molded
He found his father
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The Algonkian tribes, in some
stockaded inclosures but apparently
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ns of Ohio and the southern states
and height of the walls their earlier
epart from certain Ohio forms. The



Plate 42

Canoes on the Indian mound. Spring and clay beds in the valley in the right. Site excavated by M. R. Harrington.

There were no permanent dwellings circular in form, and mud huts or hogans were not used. It is quite apparent that from the earliest times they were an agricultural people, and neither archeology nor the testimony of early explorers or travelers indicates any wide difference in their village life from that of the Indians of Virginia and the Carolinas, for example. They relied very largely upon vegetable foods for their sustenance and the cultivation of the ground was regulated by certain customs. It appears that the Iroquois were far more like these Indians of the middle south in their village life than the Indians of the north, the Micmac or the Malecite.

Of considerable importance in the study of comparative archeology, and we believe in the study of the origin of the Iroquois, is testimony of implements of pottery and smoking pipes. Iroquois pottery is perhaps the most durable and striking material found on their village sites or in their graves, and in both decoration and form is distinctive from most forms of pottery used by Algonkins. Before discussing this subject further it may be well to state there are two general forms of Iroquois pottery, that is to say, there are two archeologic districts which yield pottery, which may be compared. The first and westernmost is the Huron–Erie area and embraces the Iroquoian sites on the Niagara peninsula in Ontario and the adjacent land to the west of it and north of Lake Erie, including also the territory in New York along the southern border of Lake Erie to the hilly land south of it. The second area is the Mohawk–Onondaga, and takes in the region of the St Lawrence basin, the east shore of Lake Ontario, the south shore of the Oswego river, southward along the Seneca river, southward through the Susquehanna valley and eastward through the Mohawk valley. In the first district the outline of the pot does not show the high collar projecting so far from the neck as is common in the second district. In many cases the collar is a very narrow band and ornamented by parallel lines or by simple oblique lines or none at all. In another variety the lines are formed in chevron patterns but in larger plats. In this form the collar does not project very much from the body of the pot and the decoration is carried down well on to the neck (see figure 34). There are instances where the triangular patterns and short lines follow a line of oblique lines drawn around the body of the pot below the rise of the neck. Such patterns are found on the vessels from Ontario and figured by Doctor Boyle, and by myself from Ripley, Chautauqua county. In the second district the wide overhanging collar becomes almost a fixed characteristic. Here it reaches the highest form of its special development and archeologists usually describe one of these pots for their ideal Iroquoian

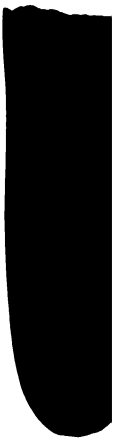


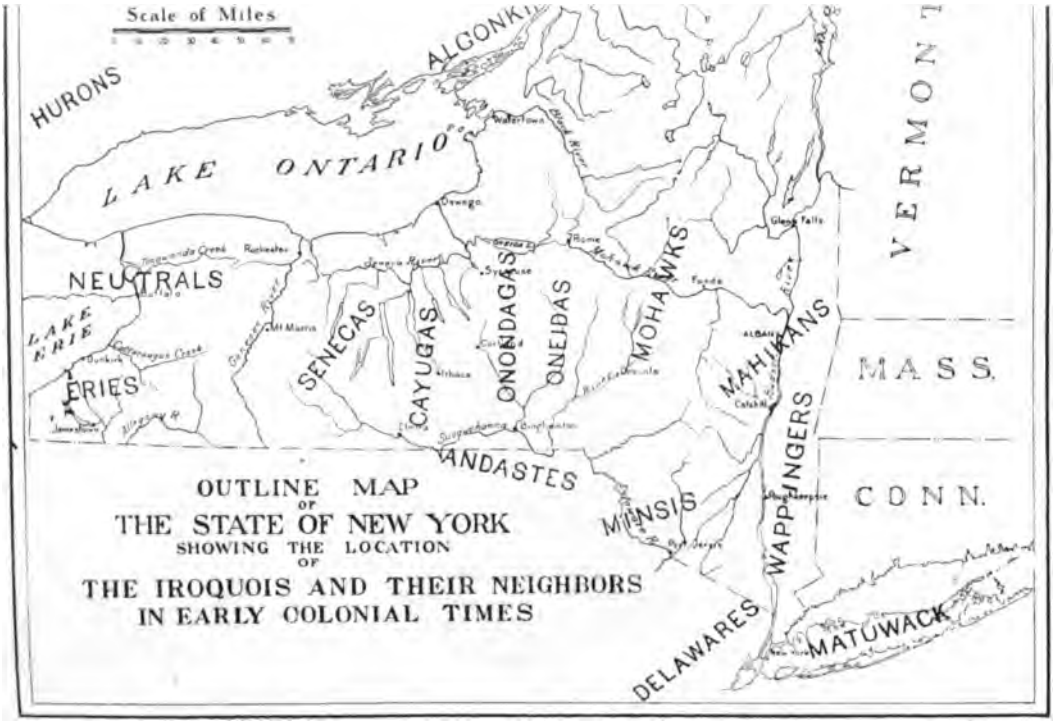




Plate 43



Erie pottery similar to Ohioan. Figures 1, 2 and 3 are of cord-marked pottery vessels. The surface of the pot shown in figure 4 seems to have been marked with a brush of twigs. Figures 5 and 6 are of plain pottery.


Scale of Miles
HURONS
ALGONKI
LAKE ONTARIO
VERMONT
NEUTRALS
LAKE ERIE
ERIES
SENECAS
CAYUGAS
ONONDAGAS
ONEIDAS
MOHAWKS
MAHIKANS
MASS.
CONN.
ANDASTES
MINSIS
WAPPINGERS
DELAWARES
MATUWACK
OUTLINE MAP
OF
THE STATE OF NEW YORK
SHOWING THE LOCATION
OF
THE IROQUOIS AND THEIR NEIGHBORS
IN EARLY COLONIAL TIMES

form. The pots in the first-named district usually have the more squat body and bulging sides. A careful comparison between the pottery vessels found by the writer at Ripley, N. Y., and those pictured by David Boyle as having been found by the Laidlaw brothers, in the sites along Balsam lake, Ontario, Canada, will show that while a general outline and form of the body is similar to the pottery of the Mohawk–Onondaga area, there are differences enough to warrant placing each district in a place by itself.

Certain forms of the Iroquoian pottery, as in western New York, does not greatly differ from those discovered in the mounds of Ohio, especially certain pottery forms described by Professor Mills of Ohio State University (see plate 43). The forms to which we refer are those having a globular body and short neck and a wide flaring mouth, the entire surface of the body being decorated with the marks of a paddle wrapped with grass stems or brushed while still plastic with the same material. Large fragments of such pottery were found by the writer in the prehistoric site at Burning Springs where they were intermixed with sherds of more conventional Iroquoian types. Some of this pottery does not differ materially from certain forms of Algonkian pottery except in the matter of shape. None of the pointed bottoms is found in the Iroquoian district in New York. Many Iroquoian vessels are small, containing not more than two quarts, while others are larger and have a capacity of several gallons. Complete vessels of the larger type are very rare but many hundreds of sherds of large vessels are found throughout Jefferson, Ontario, Erie, Montgomery and Chautauqua counties.

In the study of the design found on the typically Mohawk pottery it seems apparent that the parallel lines arranged in triangles represent porcupine quill work such as is found on the rims of bark baskets. There are certain other features of Iroquoian pottery that lead one to believe that potters in making their vessels had in mind bark baskets. The square-topped collar is not dissimilar in form to the square top of the bark basket and the dots placed around the upper edge seem to imitate the binding of the wooden rim of the basket. Oftentimes dots around the center of the body, at the beginning of the neck, seem like the stitch marks seen on bark basketry. This idea was first advanced by Frank Cushing, who gives a figure of an Iroquois basket which he says was copied in clay by potters. We believe that the idea is correct but the Iroquois of historic times did not use bark baskets or vessels of this character. All their baskets that we have seen have had flat bottoms and in outline were more or less oval at the top.

Plate 38



Typical flexed burial in the Silverheels site. There is a pottery vessel and a pipe before the face.

Other pottery patterns, such as those found throughout the Seneca district and western New York, have a narrow rim, on the lower side of which is a series of notches or projecting teeth. Sometimes this rim is devoid of these projections and has oblique parallel lines drawn at distances to the edge of the rim. This form is similar to the ordinary bark basket simply bound with an ash splint and an elm bark tape. It is of value to note for comparative purposes that the quilled or chevron pattern is far more prevalent in the Mohawk–Onondaga district than it is in Western New York or in the Seneca–Erie region.



Fig. 17. Rare Iroquois pottery design, Jefferson county

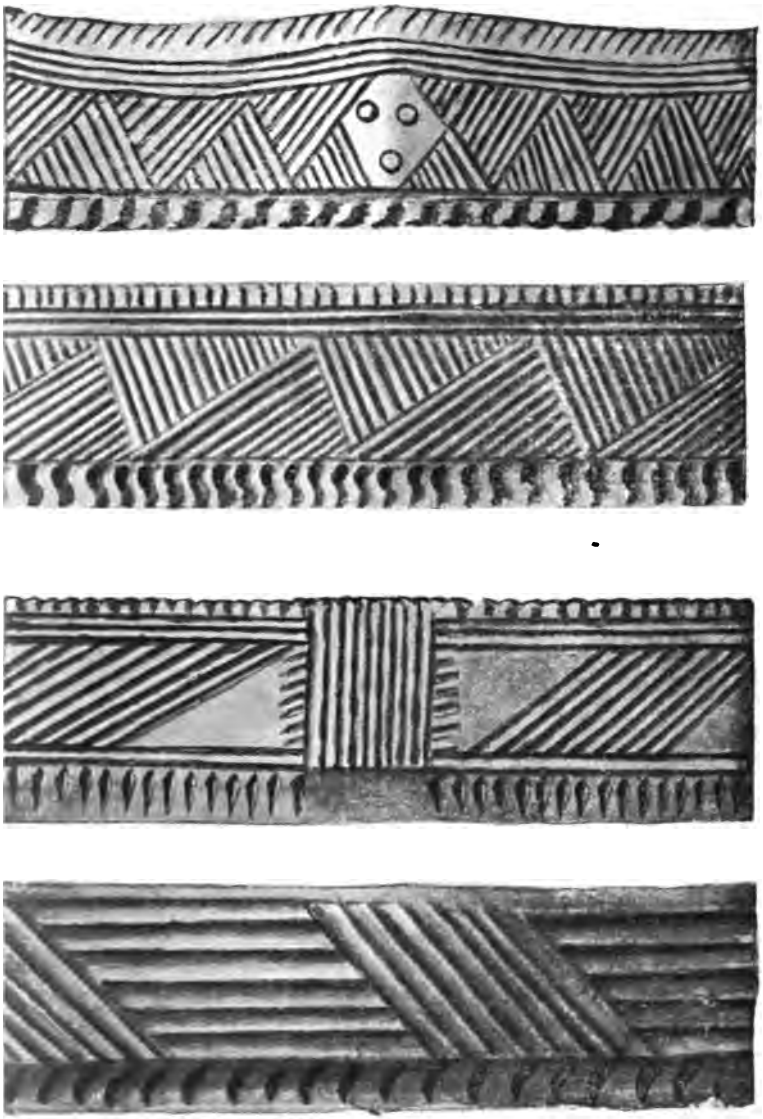
It is of great importance to note that Iroquois pottery never has a circular or scroll-like design such as is found upon the pots of the south and upon certain Ohio village sites. The absence of any curved decorations or scroll designs is significant and is one of the things which points out a deliberate attempt to avoid the distinctive art of certain other tribes.



Fig. 18 Effigy of seated human figure, terra cotta pipe from Jefferson county, probably near Watertown. Collected by W. L. Stone. x7/8

All Iroquoian pottery seems to have been built by the coil process, that is to say, it was formed by coiling ropes of clay upon a base and then worked into the desired shape by continuing the coiling process. Very few pots were blackened by pitch smoke although some pipes were treated with this process.

Plate 46



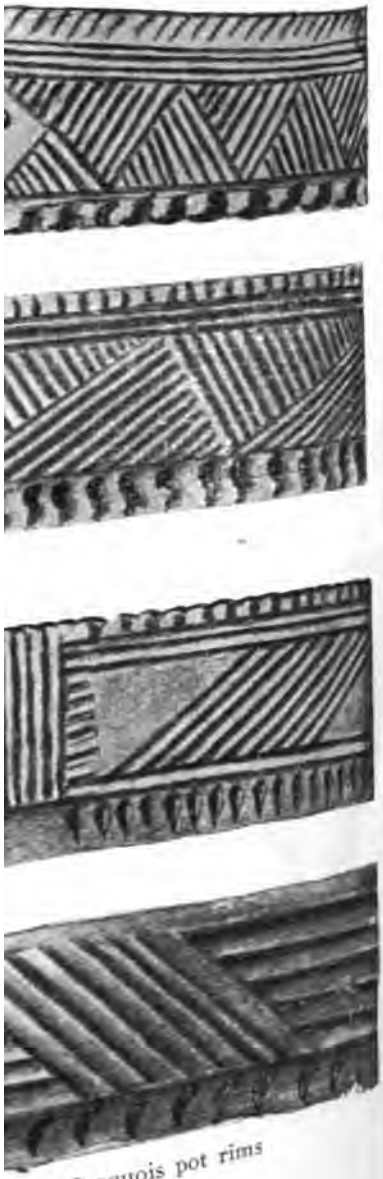
Decorative motifs from Iroquois pot rims

...king pipes. Smoking pip
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from Iroquois pot rims

Smoking pipes. Smoking pipes of both stone and clay are nun ous in the Huron–Iroquois area. There are several general fo but all bear striking resemblance to one another.

Iroquois pipes seem much different from those found in other archeological area, and it does not appear at first thought they were derived from any other forms except perhaps the s tubular form with its end bent upward at an angle. There are tain features, however, of Iroquois pipes that remind one of p of contiguous tribes. It will be noted that the monitor pipe the mound-builder region has a bowl which resembles an oval with a flaring rim. The bowl is set down into the platform, whole pipe of course being monolithic. The Iroquois did not the platform pipe, as we have previously remarked, but they employ every form of the stone bowl used on platform pipes.

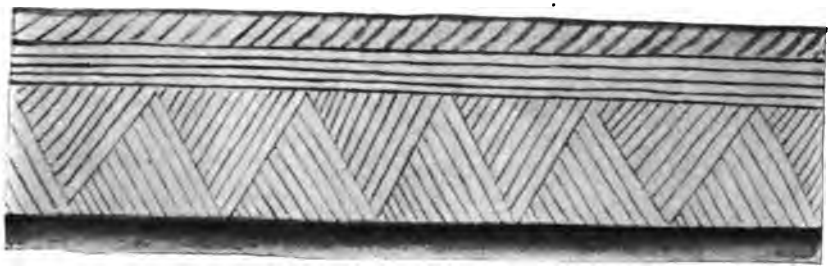


Fig. 19 Monitor pipe of stone, showing the resemblance to a vas bowl sunken in a stemmed base

bowl, however, was built in all its lines much like the monitor but submerged into the platform stem. The same remark appl certain forms of effigy pipes where the bowl has an animal projecting from it. Certain forms of Iroquois clay pipes have lar bowls but with a stem of the same material projecting fr The Iroquois did not have anything identical with the mound with beautifully formed effigies of complete birds, toads, and small mammals, such as are featured by Squier and I

[1] It must not be forgotten that Iroquois effigy pipes were mostly of m clay and the mound effigy pipes of carved ston. Compare the effi these pipes, one with the other, and it will be seen how startlingly they are, where the same life forms have been imitated.

Plate 47



1



2



3



4

Typical collar decorations on Jefferson county Iroquoian, (Onondaga) pottery. The faces on 2, 3, 4 are at the upturned corners.

There is just one important exception to this statement, and it is that relating to the cruder form of effigies found on platform stems. On early Iroquois sites effigies of this kind are found in the so-called

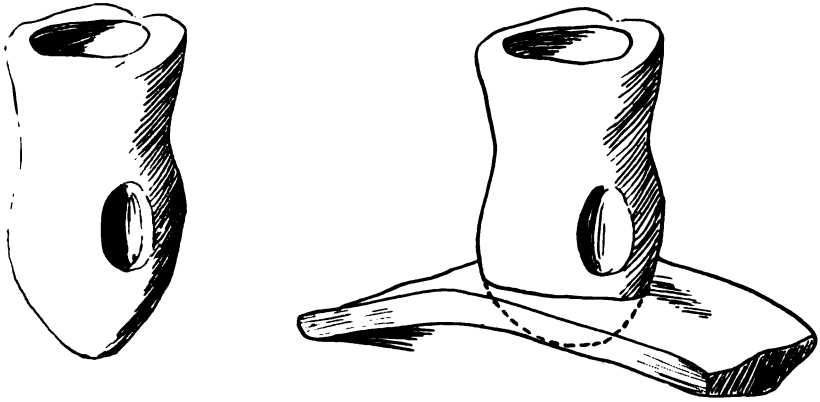


Fig. 20 Diagram showing how a pipe bowl might be sunken in a stemmed base, thus becoming the prototype of the monolithic monitor pipe

lizard or panther pipes. The platform, however, has disappeared and the bowl and the effigy have a different orientation. The effigy seems to have clung to a narrow strip of the platform which appears in the shape of a small stem, and the stem hole is drilled in the back of the effigy, the bowl of the pipe being drilled down through the top of the shoulders into the body of the effigy. The drilling shows in most cases a large conical or beveled hole. Other effigy forms show no traces of the platform or rod, as in the case of the lizard pipes which perch upon their own tails, but are conventionalized forms of birds, generally an owl, having the body at the shoulders drilled for a bowl and the stem hole drilled in the lower part of the back (see plate 48). Oftentimes in the front of the pipe a conventionalized projection is made to resemble the feet. These bear a perforation from which, no doubt, were suspended ornaments.



Fig. 21 Typical lizard or otter pipe with vaselike bowl. From an Iroquoian site. x7/8

Other forms of mound pipes used by the Iroquois without any alteration are those from the Erie region resembling animal claws and those modeled along cubical lines with a short stem base for the insertion of a reed. Iroquois and mound pipes interpreted and compared in the light of these observations show in general concept a remarkable similarity. They are more alike than are the pipes from the southern states or the Atlantic seaboard.



Fig. 22 Iroquoian slate pipe from Otsego county. W. E. Yager collection.

The stone owl pipe and the lizard pipe, which have been described best by Col. George E. Laidlaw of the Provincial Museum of Ontario, are found in the early Iroquois sites in New York and undoubtedly sites in the same period throughout the entire Iroquois area. The Province of Ontario has yielded many, numbers of them

by the Iroquois without any
gion resembling animal claws
with a short stem base for the
mound pipes interpreted and
rvations show in general con-
e more alike than are the pipes
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pipe from Otsego county.

ırd pipe, which have been described
w of the Provincial Museum of
Iroquois sites in New York and
riod throughout the entire Iroquois
has yielded many, numbers of them



Owl or bird pipe of stone. x⅔

ı New York, still others have been found through
a and the Carolinas. Others have been found
y occasionally.

es of the Iroquois in some ways remind one of
which have the effigy standing on the front part
the Iroquois pipe, however, the stem has been
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part of itself. It is not difficult to conceive that
ave been derived from either the Cherokee or
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among the people as a necessary provision
spirits might cause a modification in any line of
Ve have only to examine the history of the mod-
Ojibway and middle plains tribe to discover how
tute a custom that becomes widely known and

Iroquois pottery pipes are among the most inter-
eir ceramic art and some of the best modeling is



23 The "blowing mask" pipe. This is
:al Seneca pipe. Found in Silverheels
similar pipes come from Ontario county,
and from Brant county, Ont.

ıey bear upon their bowls the effigies of birds and
heads, human heads, and representations of
other objects. They are far more complex and
care than are the Algonkian pipes (see plate 54).

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he Algonkian pipes (see plate 54).

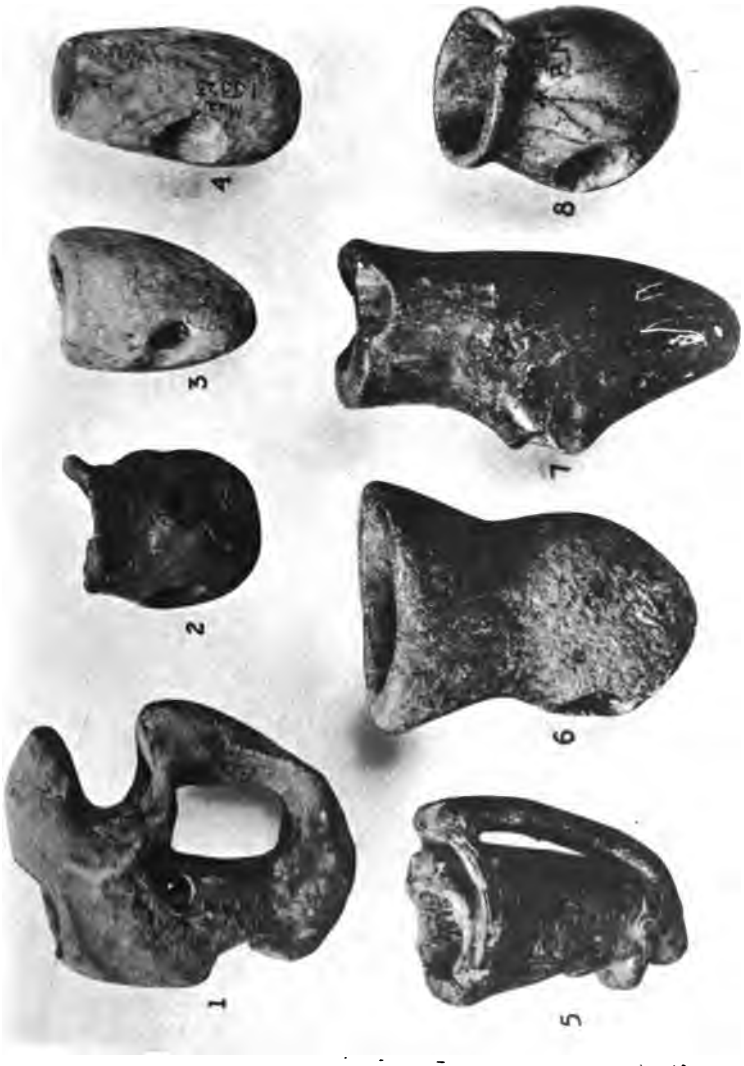


Plate 49

Iroquois clay pipes in fact are the most carefully made and best modeled clay pipes made by the aborigines of North America north of Mexico. There are certain features about them that give a hint of the customs and costumes of the people who made them; for example, they show that the skin robe with the animal head still upon it was worn as a blanket and headpiece; they give an idea of facial decoration; they represent masked figures with their hands to their lips blowing, (see figure 23) as in the false face ceremony, or they reveal their totemic animals. Some of them have numerous human faces modeled upon the stem and bowl and both the form of the face and the concept is still carried out by some of the Iroquois today, especially the Cayuga, who carved these faces upon gnarled roots as charms against witches.

The most common type of pipe among the Mohawk-Onondaga group is that having a flaring trumpet mouth. The Seneca-Erie, on the other hand, including the Hurons of the north, commonly used pipes having a cylindrical bowl upon which was a long collar decorated by parallel rings (see figure 24).



Fig. 24 Three typical Iroquoian pipe bowls. 1, the trumpet bowl; 2, the raised point square top; 3, the ringed bowl. The last appeared more recently than the other two.

Early types of both clay and stone pipes made by the Iroquois show a type of decoration made by rectangular slots arranged in series. These slots, it has been suggested, were inlaid with pieces of colored wood or shell. None so arranged, has yet been found, so far as we are able to state. This slotting is a characteristic feature in certain early pipes. (Compare 9 in plate 50 and 1 and 2 in plate 48.)

Certain forms of pipes show how widely prevalent certain concepts prevailed among the Huron-Iroquois. Briefly, there are the owl-faced pipe, the blowing pipe with the human face, the ring collar pipe, the square top pipe with the flaring collar, the trumpet bowled pipe and others. It appears that Iroquois pipes are a unique

Plate 50



CERTAIN HUMAN FACE EFFIGY PIPES FROM EARLY IROQUOIAN
1, 3, Stull site, mouth of Honeoye; 2, 4, 6, 7, 8, 9, Ri
5, a two-faced pipe from Belmont, (G. L. Tucker coll.) N
no eyes. A. H. Dewey found specimens from Richmond M
showing the remnants of shell eyes.

Plate 51



of pipes showing various forms of effigies of the human face.
a. x¾

part of their culture. Further description of these is given elsewhere in this bulletin.

It is interesting to note the methods by which the stem holes of Iroquois pipes were produced. Probably the majority have had the hole punched through the stem while the clay was yet plastic but there are many specimens that show that the clay was rolled or modeled over a small reed, straw or a wisp of twisted grass. When the clay was burned the reed or grass burned out and left the stem hole. Hundreds of broken and split specimens from western and central New York reveal this ingenious method of making the hole. Very likely this usage added to the strength of the modeled form and prevented the danger of cracking the stem by punching, and insured an unobstructed passage to the bowl.

Plate 52



uoian clay pipes from New York. 1. Trumpet-shaped pipe, ·ly Onondaga and Erie sites; 2. Moon pipe, prehistoric Onon-:a pipe with bird head effigy; 4. Face from an Oneida pipe; y pipe, broken stem, Ontario county; 6. Effigy pipe, Leroy, ›ric Seneca of the Genesee valley; 7. Typical early colonial eutral pipe, Erie county.

Plate 53



CLAY PIPES, IROQUOIAN, FROM CENTRAL AND NORTHERN NEW YORK

1, Pompey; 2, Jefferson co.; 3, Cicero; 4, Lima; 5, Pompey; 6, Jefferson co.; 7, Oneida co.; 8, Dann site, Monroe co.; 9, Ellisburg, Jefferson co. 7 appears to be of obdurated clay and the carving resembles certain Ross co., O. mound pipes.

Plate 54



Iroquoian clay pipes from Jefferson county. Loveland collection, State Museum.

Iroquois Migration Hypothesis

For the sake of a working hypothesis and for the benefit of future discussion, we wish to advance a theory explaining the presence of the Iroquois in this particular area.

Let us suppose that the one, two or more related tribes of early Huron-Iroquois lived in a portion of a region embraced within a circle having a radius of 200 miles and with its center at the mouth of the Ohio river. ere they were in contact with the Caddo, the Muskhogee, the Sioux and some of the Algonkin. They were more or less agricultural and sedentary and familiar with village life. They knew how to erect stockades and build earthen walls for their inclosures.

Some movement of intruding immigrants or other influence caused them as a body to push northward up the Ohio river. Some went eastward into the Carolinas, but the main body migranted in a northeasterly direction. The tribes of the Cherokee were the first to lead the way and crowded upon the mound-building Indians of Ohio, whom they fought for a long period of time. They finally overcame the Mound Builders[1] and absorbed a large number into their own tribal divisions, and possessed themselves of the Mound-Builder country. Very likely they were assisted in this conquest by bands of Choctaw, Algonkins and by some of their own cognate kinsmen.

They then took upon themselves some of the characteristics of the Mound Builders, but endeavored to blot out some of their arts, to the extent of mutilating objects they regarded as symbolic of their former enemies.

Other Iroquoian tribes then pushed northward and endeavored to pass through the Cherokee Mound-Builder country. Jealousies arose and the newcomers with the Delaware began a general war against them, finally driving them southward and across the Appalachian ranges. This estranged the two branches and led to wars up to well into the historic period.

The beauty and fertility of the country attracted settlement, but the Cherokee constantly raided their villages. Bands then began to

[1] We use this term only as a convenient expression to describe the Indian tribes of the region under discussion.

cross the Detroit river and push their way into the peninsula between Lakes Huron, Erie and Ontario. A band now known as the Huron established themselves near and southward of Lake Simcoe. An allied tribe, the Attiwandaronk or Neuter, possessed the region south and east of them, taking the Grand River country and pushing eastward across the Niagara. Still other bands pushed over the northern shores of Lakes Erie and Ontario and fought their way to the mouth of the St Lawrence.

Powerful bands established themselves about the St Lawrence, with the site of Montreal as a center. They were the Mohawk-Onondaga, though the Onondaga soon pushed southward to the hilly region east of the foot of Lake Ontario, in the present Jefferson county.

Certain bands continued on the south shores of the lakes and pushed their way eastward. One division, the Erie, claimed nearly the entire southern shore of Lake Erie while the Seneca, pushing eastward laid hold of the country from the Genesee river to Canandaigua lake.

The Conestoga or Andaste took northern Pennsylvania, especially the region embraced by the two branches of the Susquehanna, including the Chemung river and southward, perhaps as far as Harrisburg. From thence to the headwaters of the Chesapeake the Susquehannock claimed dominion. Still southward but east of the Cherokee pushed the Tuscarora and it is possible that bands of them earlier lived there.

There was constant intercourse between the various tribes who were well aware of the seats of one another. Often the various bands were at war and often there were loose alliances, as of the Tuscarora with the northern Iroquois. The Cherokee and Iroquois, especially the Seneca, were constantly at war. To the north the chief enemies of the Iroquois were the Adirondack, who later allied themselves with the Huron.

The Huron-Iroquois pushed the eastern Algonkin to a narrow strip along the coast and so separated them from their western kinsmen that they exercised a dominant influence over their material culture and to some extent their social organization. The Delaware, who were closely associated with the Iroquois, were always more or less friendly with them, and indeed in the historic period at least acknowledged the supreme authority of the confederated Iroquois over them.



...ments of Iroquoian pott...
...Ernest Young collect...

Plate 55



Fragments of Iroquoian pottery from an Iroquoian site near South Bend, Ind. x⅔ Ernest Young collector.

The raids of the Adirondack or Abenaki of the north, and the hostility of the southern Iroquois at length compelled the Laurentian Iroquois, the Mohawk, Onondaga and Oneida tribes, to form a compact which later took in the Cayuga and then the Seneca.

The Onondaga early had pushed farther south, leaving their east Ontario (Jefferson county) strongholds and occupying the hilly country south of Onondaga lake, in the present Onondaga county. The incursions of the Abenaki made this necessary. The Mohawk soon followed owing to disagreements with the Laurentian Huron. In their southern migration they came upon the Mohawk valley country where they established themselves first on the highlands north of the river, in the present Fulton and Montgomery counties, and later on the southern side of the river. The Oneida band, long a separate body, moved westward into the highlands of Madison county. Still west and on the hills near Limestone creek were the Onondaga and beyond them the Cayuga living along the Seneca river and southward about Cayuga lake.

Between these divisions of Iroquois in spite of a common origin and common stock dialects there were frequent feuds and much jealousy. In general their southern neighbors gave them too much trouble to leave much time for war between themselves. The Mohawk sent war parties north to harass their foes, the Huron and Abenaki and even the Micmac, but in turn were disturbed by the Conestoga or Andaste, whose Chemung valley settlements made war on the Cayuga also. The Seneca and Erie tribes in the Genesee country and along Lake Erie were in constant intercourse and perhaps allied for defensive purposes. The westernmost Seneca settlements were especially friendly with the Erie. On both sides of the Niagara river were the villages of the Attiwandaronk or Neutral, considered an old and parent body of all the Huron-Iroquois. Within one of their villages near the Niagara lived Ji-gon-sa-seh, "The Mother of Nations," a woman who was a lineal descendant of "the first woman of earth."

The Neutral had a series of eastern settlements occupied by a band calling themselves the Wenro.

The pressure of the eastern Iroquois and the additional power their friendship would give, made the idea of a confederacy to the Seneca an inviting one and a large portion of the nation subscribed to it. The Erie were not kindly disposed to the idea and the southern Iroquois were not at all attracted by it. The Neutral saw no need of entering the league since they made no local war and since

both their Huron and Iroquois kinsmen respected authority and the prestige given them by the "Mothe Thus, the Iroquois Confederacy or Long House cai only the Mohawk, Oneida, Onondaga, Cayuga and fact that some of their kinsmen would not join the cc displeasing to the Five Nations, who though dedicati to the establishment of peace saw grave danger in t who refused to subscribe to the articles of friendsl confederacy was soon beset with enemies on all sides rising influence a general danger. But the confede certain mental qualities within its leaders who were whelmed. They became astute statesmen as well as riors. They learned the advantage of concerted a promise among themselves and of organizing mass oi nation after nation fell before them,— the Erie, th Huron, the Wenro, and the Conestoga. The Cherok away to reach effectively. Although the Five Nat sands of warriors their foes lost more and the si were made captives, led into the Iroquois villages an swelled their ranks enormously and virtually ui mixture all the Iroquois.

The triumph did not come to them, however, unt the colonial period, and with this triumph came the g Five Nations. This was from about 1650 to 17! earlier date their foes had been Indians; after that c with the white man, it is true, but they lost no pc however, the colonists had come in such number Nations saw the end of their ascendancy as a c They had come, they had conquered and now they l in a complex of cultural elements of which their anc dreamed.

When one considers how many captives were ta quois tribes, and how extensive their trade and the seems little short of marvelous that so few non-I are found on the sites of their former habitation. thing we find is unmistakably Iroquois, as if amo that they met and conquered nothing that they i taking or copying by the Iroquois. They even objects, as we have already seen, that ordinarily attractive to them. It is true that some non-Iroqu have been found, but these are very few and ma

by the wandering enemy or concealed by captives. We are thus compelled to believe, since the preponderance of evidence supports it, that the Iroquois held their material culture a crystallized thing, a possession that must not be adulterated or violated. They must have deliberately stripped their captives of everything distinctively non-Iroquoian and prevented them from making distinctive objects of other tribes. Historically we know that the Iroquois removed the moccasins of their captives and placed upon their feet those of the Iroquois pattern. In all this there is an interesting suggestion for the study of American Indian folk belief.

With the coming of the European many of these older beliefs began to crumble. The white man's goods were desirable to a degree that broke down all resistance. They were filled with the potent magic of the white man and gave power and speed to those who used them. Thus on all Iroquois sites that were occupied when the European traders tracked their way through the forests, European articles may be found. The number of implements of the white man's manufacture found on sites increases as time goes on, until in midcolonial times the sites of Iroquois towns, as at Boughton Hill and Rochester Junction, are strewn with scraps of brass and bits of iron. Even the graves contain guns, scissors, copper and brass kettles, and glass beads are shoveled up by the quart. In late colonial sites European articles predominate and as the nineteenth century advanced, distinctively Indian things all but disappear.

Only in a few places today do the Iroquois tribes make any durable thing that is similar to their old manufactures, though they do have a few ceremonial articles of bark, wood, husk and skin. They make nothing more of stone, clay or flint. They still make — at least some non-Christian Iroquois do — turtle shell rattles. Their early belief told how the earth rested on the back of a turtle. It was the first permanent thing; likewise the shell of the turtle, empty save for a few kernels of corn or small pebbles, is the last characteristic thing of their culture that when buried in the earth will survive the action of the elements. The white man's goods and the white man's way of living have all but obliterated the Iroquois. The so-called "pagans" have a few ceremonies, make a few ceremonial and useful articles and remember a few legends yet, but outwardly the bronze-skinned Iroquois is dressed as a white man who gains his livelihood as white men do, by working as a section hand, upon the farm or in the shop, or perchance by writing treatises upon archeology. There are few things he can not now do that other races

do. And it should be recorded that several hundred of the younger men volunteered for the late war as soldiers of the American and Canadian expeditionary forces and went overseas in almost every capacity from private to captain, thereby in the most effective manner strengthening the bonds that unite them, the Iroquois, with the common brotherhood of nations. Thus we may see whither they go, but our problem has been to determine whence they came. Our information as we have seen, points to a source to the west, and down the Ohio. We ought to find plain evidences of early Iroquois sites all along the Ohio river and westward along the shores of Lake Erie and even as far as Wisconsin, thence southward to the mouth of the Ohio.

IV

CERTAIN TYPE SITES INTENSIVELY EXPLORED

BURNING SPRING PREHISTORIC IROQUOIAN SITE

NEAR VERSAILLES, CATTARAUGUS COUNTY

BY ARTHUR C. PARKER

Burning Spring fort is a precolonial Iroquoian stronghold in the township of Perrysburg, Cattaraugus county, New York. It is situated on the point of a ridge jutting out from the superior terrace on the southeast side of Cattaraugus creek, southeast of the mouth of Big Indian creek.

The earth wall that forms the breastworks of the fort is locally supposed to have been beyond the powers of Indians to erect and is therefore credited, for no apparent reason beyond this, to the French, and the place has therefore been called the "Old French Fort." The name of "Burning Spring fort" has been substituted in this account as more descriptive of its location and as more consistent with fact.

The "burning spring" is found at the foot of the hill upon which the fort is located and takes its name from the gas that bubbles from the rocks beneath the water at the base of Burning Spring falls, a stone's throw from the mouth of Big Indian creek. The gas, up to some twenty years ago, issued in considerable volume, and once lighted continued burning until extinguished by a heavy freshet or by high winds. At present the gas is emitted in small quantities from a crevice in the slate rock and supports but a feeble flame. Still, the picturesque falls, the wide slate-bottomed creek, the sulphur spring, the ancient fort above and the romantic surroundings have for many years made the spot an ideal one for picnics.

The fort proper embraces an area of about one acre. The site is one admirably adapted by its natural surroundings for a fortified refuge, the swift treacherous Cattaraugus on the north preventing easy access from that direction and the high, almost perpendicular, slate cliffs of Big Indian creek on the west forming effective barriers there. The eastern hillside is less steep but is protected by a series of trenches, shielded by walls of earth, dug into the hill at intervals from top to bottom. These outposts are found at all easily accessible parts of the bank. They were possibly intended as vantage

Plate 50

11

places from which an enemy could be fought and driven down the slope. Plate 58 is a cross section of the eastern hill near the gateway of the fort and shows two of the outposts. Plate 59 gives the outline of one looking down and into it.

That these walls and trenches are artificial is proved by the fact that potsherds, fire-broken stones, chipped flints, and stone implements were found below the modern bottoms of the trenches behind them. This indicates that they were occupied. The earth of which the walls are composed, upon examination, proves to have been thrown up by men because the strata of soil are reversed and intermixed.

The fort is separated from the point of which it is a part by a wall 200 feet in length that curves irregularly from bank to bank. That this wall is of artificial origin is evident at a glance and this is confirmed by an examination of the earth of which the wall is built. The lake-washed sand is found on top while the yellow sand and top soil are found beneath. The base of the wall is 14 feet in thickness while the ditch from the crest of the wall to the outer edge of the excavation is 16 feet wide. The average height of the wall from the bottom of the trench is 5 feet. Near the eastern side of the fort where the hill is not steep the wall as it approaches it is higher and steeper and the trench deeper. A depression in the top of the wall at this point seems to indicate the ancient gateway. A log probably bridged the ditch at this place over the deep pit.

That the site was anciently occupied by man is to be judged not only from the wall but from the pottery fragments, flint chips, flint articles, stones showing signs of use and fire-broken stones found scattered over the surface of the ground within the wall-inclosed area. Such objects always constitute good evidence of aboriginal occupation.

In view of the interesting location of the Burning Spring site, its remarkable features and pronounced evidence of aboriginal occupation it was chosen as a site most worthy of archeological research, the object being to discover if possible the tribal identity of the one-time occupants and builders of the fort, and to find as many specimens of their manufactured implements, etc. as possible, the former to be deduced from the latter.

The owner of the fort, an Indian, never permitted anyone to excavate in it and before his death in 1902 he instructed his two daughters to see that no white man should ever touch it if they could prevent it. Many people, however, at various times surreptitiously dug holes in the wall hoping to find relics therein and a few

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Plate 57

more experienced than the rest dug pits near it. Beyond this no systematic effort has ever been made to excavate the site.

A lease was secured August 20, 1905, and excavations begun in a narrow strip that lay on the southern end near the wall, all other portions at the time being under cultivation. Between August 20th and October 15th twenty-five trenches 8 to 10 feet wide were dug through the stratum showing signs of disturbance, crops having been removed about September 20th, permitting free use of the ground. In the trenches were found thirty-five pits while fifteen others were discovered by the "post holing" method. These pits, with few exceptions, were fireplaces. Fifty inches was the maximum depth to which disturbed earth extended and 30 inches was the average. Usually the pits contained several layers, the bottom being composed of a deposit of charcoal and ash intermixed with fragments of broken pots, flint chips, etc. A layer of stained yellow sand covered this and above it another stratum of charcoal and ash, while above all was the top soil that gave no clue to the pit beneath.

Nearly all the objects in the collection of archeological material were discovered in these pits.

Pits of this kind are common on most Indian sites; as is commonly known fires were built within them for heat, light and for cooking purposes. A deposit of charcoal and ash thus accumulated in the bottoms of the excavations. To extinguish the fire loose dirt or sods were thrown in, covering the embers and smothering the flames. Sweepings from the wigwam floor were also thrown in. This refuse consisted of broken earthenware, bones of animals, shells of shell fish, waste food, discarded stone implements and other similar things. Often by accident or intent objects of value, such as perfect flints, bone implements, trinkets etc. were swept or thrown in. A new fire was built and the process repeated until the pit was filled and abandoned. Pits are therefore places in which one may find many things of interest bearing on the life and arts of the ancient people whose history he is endeavoring to discover.

Much of the vegetable matter thrown upon the fire in pits became carbonized, thus preserving its form. In the Burning Spring pits were found charred walnut and butternut shells, corn and wild plum pits. We may be fairly sure therefore that the occupants of the site ate such things though they probably ate many other things besides.

The bones in Burning Spring fort pits were so far decomposed that only a few were discovered, a few bones of bear, deer and fish

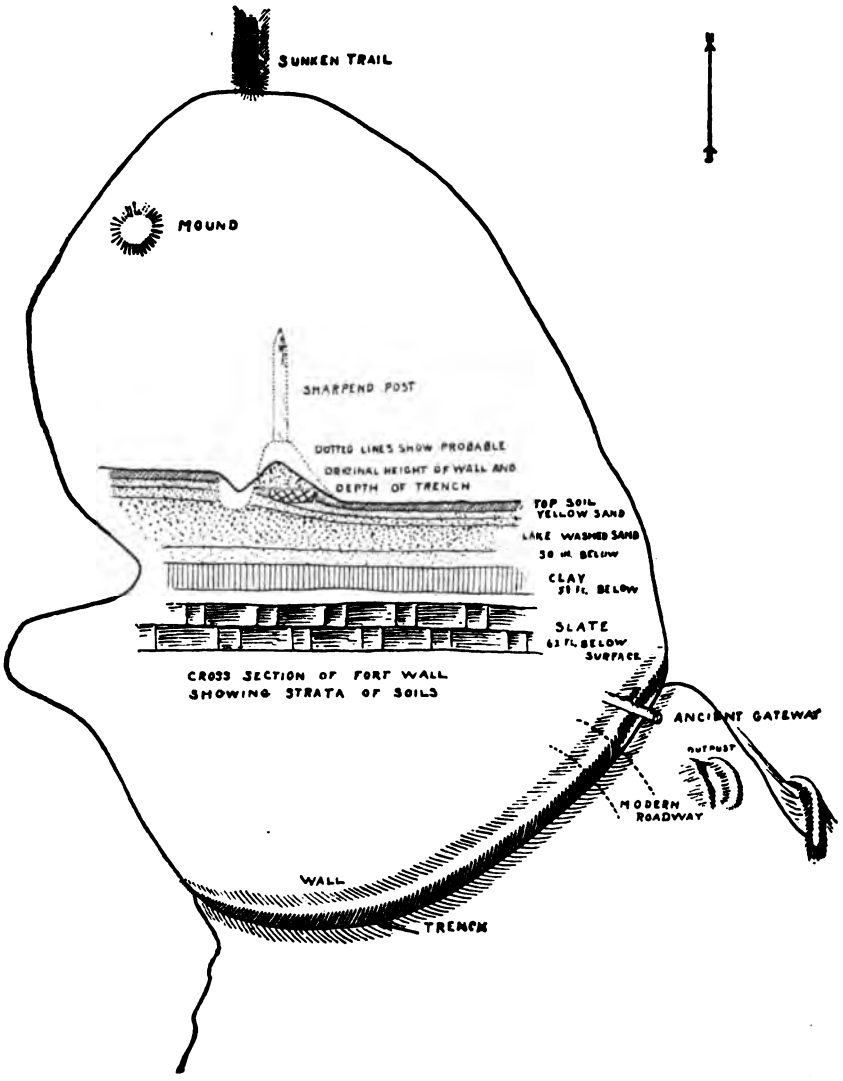
being the only ones found. In almost all sites in the vicinity the bones are almost as tough and hard as when the meat was stripped from them several hundred years ago.

The pottery from Burning Spring is in most ways similar to all early Iroquoian pottery in composition and design. A critical study and comparison does not show it to be different in any essential respect. The pipe pottery is somewhat different in form and design from any Erie pipe pottery from sites in which European articles are found. The bowls are thinner and more capacious. The designs on the earthen pots are numerous and a great deal of ingenuity is displayed in ornamentation by means of dots, single lines, parallel lines, oblique lines and dashes. Specimens showing fabric markings, those showing imprints made by a cord wound stick, and also those on which there are imitation cord marks are numerous. Pottery tempered by mixing with the clay, pulverized flint, quartz mica schist and shell and coarse sand are among the specimens. A number of sherds perforated on either side of a fracture were discovered. Sinews or bark cords were probably passed through these holes to bind the break which was cemented by pitch.

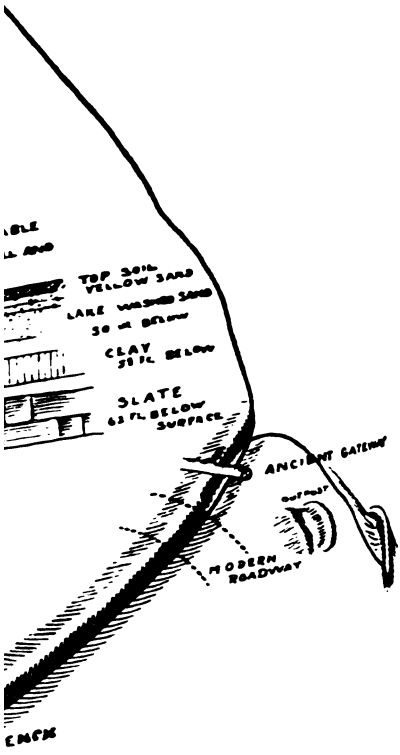
The stone implements are most numerous and varied. Many hammerstones were found. These were usually of natural discoidal pebbles pitted or picked on either side to afford a better hold. The collection contains a number of anvils bearing the marks of flints that have been chipped upon them. Two grinding stones and two mullers were found. Specimen 177 is a good example of a smooth shallow matete while 132 is a rough one which, when reversed, served as an anvil. Three cylindrical pestles were discovered in pits. Specimen 22 is a good example of a chipped pestle. Specimen 108 is a pestlelike object made from some soft stone. It is so soft that it could hardly have been used for heavy pounding. The stone axes or celts were among the interesting specimens of the polished stone implements. They are interesting because they are dissimilar. That the ancient inhabitants of the site were fishermen seems evident from the number of net-sinkers found. They are of the usual type found on all sites ancient or modern. Specimen 115 is a good illustration of the average form of a net-sinker.

Flint objects were fairly abundant and include scrapers, a few perforators, knives, spears, triangular arrow points, a few notched points, blank or cachè blades, rejects, broken points and chips — in fact, a complete collection of flint objects and the waste and accidents incident to their manufacture.

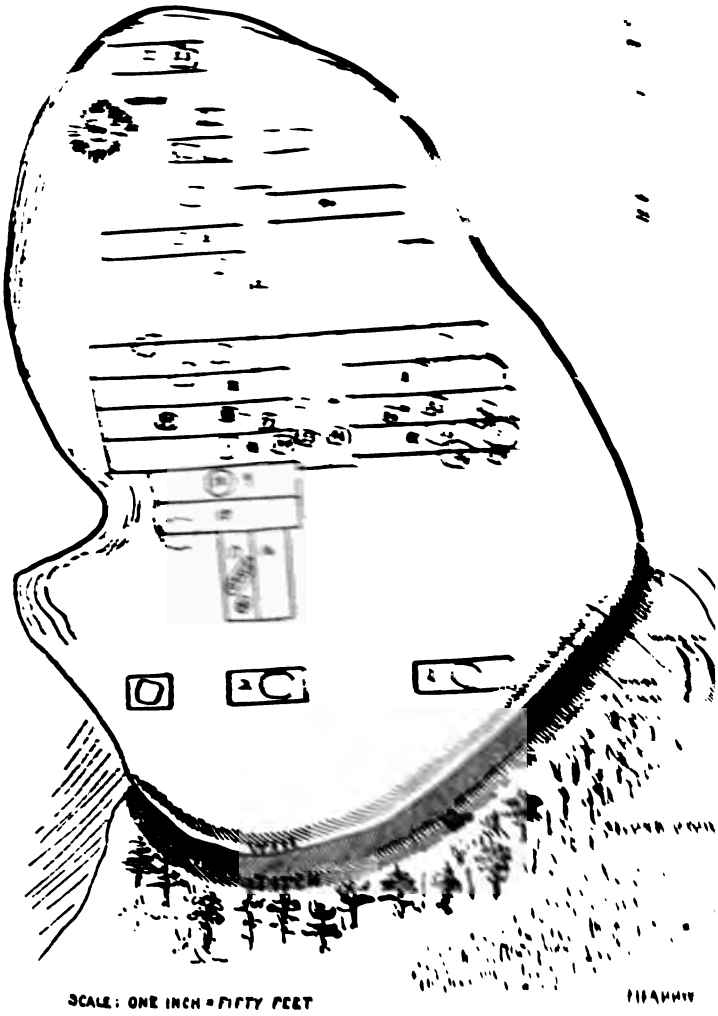
Plate 58



Outline of the Burning Spring fort showing cross section



g fort showing cross section



Notebook sketch of the area within the Burning Spring fortific[illegible] wall and ditch are indicated and the trenches outlined

The flint articles found at Burning Spring are of a different type from those found in the site at the mouth of the Cattaraugus creek and were made by a different people. The material is also different, no jasper or fine quality of flint being found. The material without exception is the local flint and chert.

Three disintegrated skeletons were found in pits on the eastern side of the fort, but these were so far decomposed that they would have resisted every artifice to restore them.

Each grave pit contained a smaller intrusive pit and a quantity of charred straw or grass. Grave pit 1 contained a large broken pottery vessel, pit 2 a broken pipe bowl and pit 3 a rude axe or celt.

Nothing of the positions of skeletons could be determined. That no complete skeletons could be found is to be regretted.

No metallic articles were discovered, notwithstanding the fact that Bulletin 32, The Aboriginal Occupation of New York, contains a paragraph on the site in which it is stated that explorers in 1838 discovered skeletons and iron axes within it. Such articles may have been found near the site near the mouth of Castile or Indian creek 2 miles above Burning Spring and been credited by mistake to Burning Spring fort.

The character of the objects found here leads to the conclusion that the site is one occupied by a branch of some early Iroquoian tribe. It can not have been the Seneca for it antedates the Seneca occupation. It is probably Erie, but if so, seems very early. The vessel pottery is similar to the early Iroquoian; for example, Jefferson or Onondaga counties. The pipe bowls are early Iroquoian but the bowls are thinner and of greater capacity. They are Iroquoian but not of an ordinary type.

A PREHISTORIC IROQUOIAN VILLAGE AND BURIAL SITE IN CHAUTAUQUA COUNTY

By ARTHUR C. PARKER

Early in the month of May 1907, a preliminary examination was made by the writer of some of the earthworks in that part of Chautauqua county lying south of the Chautauqua range of hills in the Allegheny-Ohio watershed. The outlook seemed a promising one, judging from the abundance of earthworks visited and reported. The Cassadaga valley was of special interest and a season's campaign of investigation was planned for this region. Upon the uneven stream-cut hills that rise from the ancient lake bottoms were found everywhere traces of an early people which seemed eminently



Fig. 1 The central pit i



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Plate 60



Fig. 1 The central pit in the McCullough earth incl



Fig. 2 View looking over the burial knoll. Ossuary 5 was stump shown in the left-hand corner of the picture.

worthy of study. How numerous are the fort sites may be suggested when it is stated that from a hill just over the town line in Charlotte are to be seen the sites of seven and possibly eight fort and camp sites.

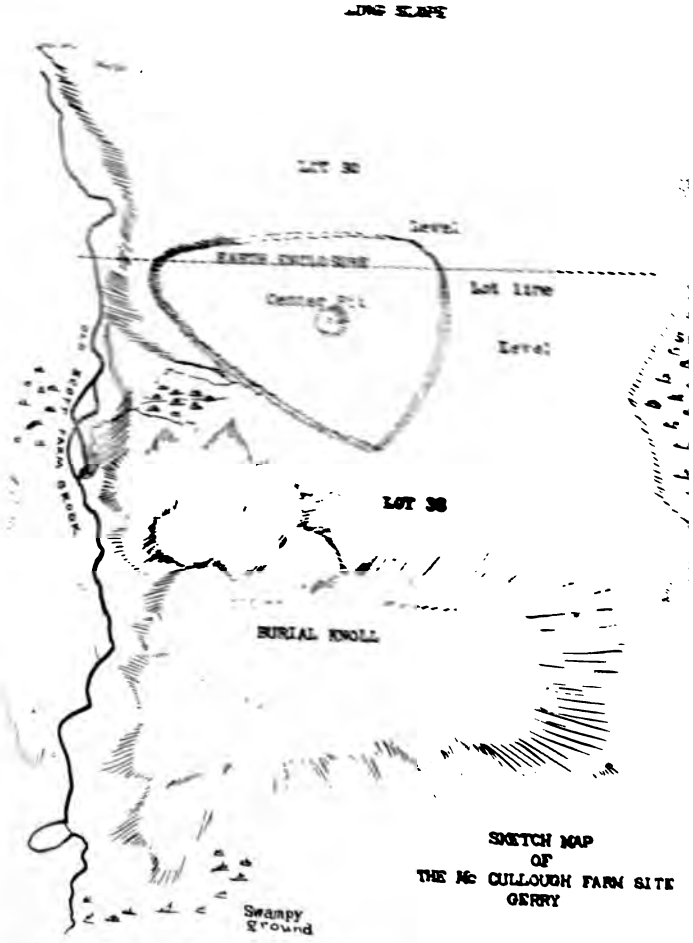
One of the sites to which considerable attention was devoted is situated in a sugarbush on the Martin McCullough farm, lot 38, Gerry township. Here surrounded by a swamp from which rise sloping hills is a rise of land some 3 feet above the swamp level. Upon this rise of ground is an oval or rather kite-shaped earthwork 1297 feet in circumference. The wall is now from 22 to 24 inches in height and is composed of the earth which was scooped from an outer ditch bordering the wall. This earthen ridge first attracted the attention of Obed Edson who some fifty years ago was engaged in running the lot lines. Some mention of it is contained in the various county histories to which he has contributed or written. Numbers of men distinguished in archeologic science have visited the place and more than a dozen years ago representatives of the Smithsonian Institution made some investigations there. To the west of the earth wall rises a small knoll which appeared to be composed of glacial sand and to the north running through a little valley is a brooklet. Within the wall are numerous pits or depressions 5 or 6 feet in diameter and 3 to 9 inches deep. These, upon examination, proved to be shallow refuse pits with an original depth of from 1 to 2½ feet. A rather remarkable pit is situated almost in the center of the inclosure and measures 157 feet in circumference with a depth of 5 feet. The earth wall is surrounded on its outer side by a ditch which is at present but little more than a foot below the normal level of the surface. The wall at present is on the average 8 or 9 feet through at the base and the crest of the ridge rises 2 feet in places. The ditch and wall are entirely visible in lot 38 and the wall may be traced in lot 30 where the ground has been cultivated for several years. An enormous white pine stump stands on the northwestern side of the wall. A cross-section of this stump was made by Hon. Obed Edson and more than 400 rings were counted. At the northwest corner of the earthwork where the stump stands, the surface of the ground is 20 feet higher than the brook bed, which lies to the north 25 feet distant. At the lot line on the east the earth wall takes an abrupt turn almost at right angles and runs about parallel to the line for 450 feet.

Within the inclosure at about its mid point is the bowl-shaped depression, previously mentioned. The pit is 5 feet deep and 50 feet in diameter. In area the inclosure is about 3 acres.

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Plate 6x



Sketch map of the McCulloch Farm site, Gerry, Chautauqua co

It was found after some expenditure of time that very little movable material data bearing on the original inhabitants could be hoped for. Specimens of the arts and manufactures were few and fragmentary. However, bearing in mind that the problem was to discover the identity and characteristics of the builders of the earthworks, it was deemed advisable to continue until they could be thoroughly studied and every important fact obtainable brought to light. Since the area within the inclosure refused to divulge all the desired information, it was sought to discover the burials and wring from the crumbling bones of these swamp dwellers some word or fact to dispel the mystery.

Post holes were dug in the ridge to the west of the earth-walled inclosure to discover, if possible, whether or not there were any burials, it being the spot most suited for graves, in point of accessibility. The surrounding ground was swampy and the loam but a few inches in depth when a stiff clay or hardpan was encountered. The knoll, on the other hand, was dry and sandy.

After forty tests had been made, running from the brook on the north in a southerly direction, an area of disturbed earth was found and a trench staked out for systematic excavation. Following the rule the trench was one rod wide. Trench 1 was run over the crest of the ridge from south to north.

Burial 1, was found at 16 feet in the middle of the trench 20 inches below the surface. A root-eaten skeleton of a young female was discovered. The skull was crushed at the top. Only the skull and upper ribs and upper arm bones were found. The head lay to the northeast, face northwest. Twenty-eight inches southeast and above the head was an ash pit 18 inches deep. It was filled with white ashes. The superincumbent soil was sandy and intermixed with bits of charcoal.

Burial 2. At 16 feet on the west side of the trench, 36 inches below the surface and opposite burial 1, burial 2 was discovered. The skeleton was that of an adult male and lay in a flexed position. Measurements of the skeleton as it lay led to the following data: 33 inches from top of skull to heel; knee to back, 9 inches; pelvis to top of head, 33 inches. The soil was strewn with charcoal bits and potsherds. A black fibrous phosphate was noticeable in the grave soil.

Two empty graves were found between this burial and the next (no. 3). Their character as graves was shown by the soft, loose and disturbed soil which lay surrounded by the hard, undisturbed grit. It was an easy matter to shovel out the grave soil because of

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Fig. 2 Ossuary 5, McCullough site, Gerry, containing 14 skeleto

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Fig. 1 Grave 6, McCullough farm site, Gerry, N. Y.



Fig. 2 Ossuary 5, McCullough site, Gerry, containing 14 skeletons

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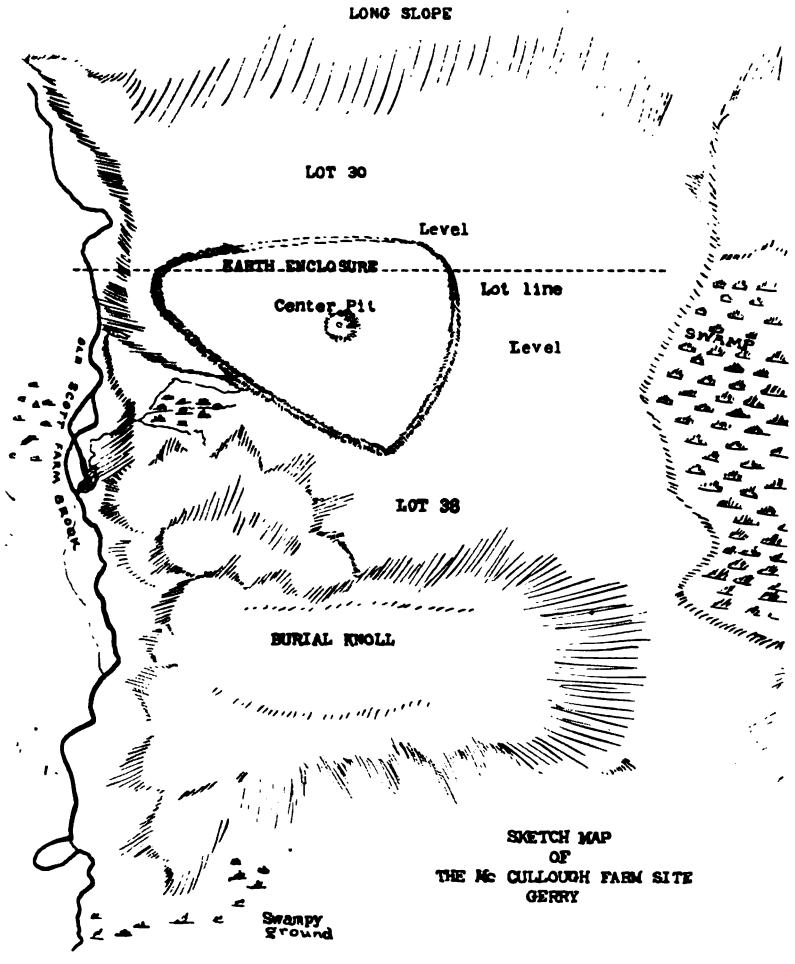


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Plate 61



Sketch map of the McCulloch Farm site, Gerry, Chautauqua county

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Burial 2. At 16 feet on the west side of the trench, 36 inches below the surface and opposite burial 1, burial 2 was discovered. The skeleton was that of an adult male and lay in a flexed position. Measurements of the skeleton as it lay led to the following data: 53 inches from top of skull to heel; knee to back, 9 inches; pelvis to top of head, 33 inches. The soil was strewn with charcoal bits and potsherds. A black fibrous phosphate was noticeable in the grave soil.

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Fig. 2 Ossuary 5, McCullough site, Gerry, containing 14 skeletons

; looseness, without disturbing the wall of the grave. Only a few agments of bones were discovered in these empty graves.

Burial 3. Discovered at 34 feet on the west side of trench 1, 26 ches down. Skeleton was that of an infant 8 or 9 years old. The ull was crushed. The body lay in a grave outlined by a row of ıt stones placed upright on edge. Orientation: head, east-south-st; face north-northwest; right side, flexed. Body lay east-south-st by north-northwest. From top of head to end of toes 2 feet inches. Black substance in grave. Ash pit south of skull at 18 ches. Grave soil much disturbed.

Burial 4 was found at 33 feet on the east side of the trench. The :pth was 25 inches and the grave outline 60 by 35 inches. A :cayed male skeleton lying in the usual flexed position. Orienta-ɔn: head, south-southeast; face west-southwest, left side. The :eleton as it lay measured 36 inches from top of head to heel and ; inches from knee to back. The superincumbent grave soil was uch disturbed. An ash pit 2½ feet in diameter and 1 foot deep as found just south of the grave.

Between graves 3 and 4 there was a streak of disturbed earth 30 ches deep, as if the entire ground had once been turned over to this pth. There was a thin separating wall as if there had been two her graves here.

Burial 5. At 40 feet on the east side of trench 1 the tops of two ıulders were struck and a few inches north of them a heavy bed white ashes. Beneath the ash bed, 11 inches from the surface the ground, the tops of several skulls were touched. Careful cavation revealed a small ossuary containing the remains of parts fourteen skeletons.

The bones were placed in a rectangular heap measuring north-st to southwest, 2 feet 4 inches, by northwest to southeast, 1 foot inches. The large bones, femora, tibiae etc., lay northwest and utheast. Six skulls were arranged around the top of the ossuary d beneath them were four others, all broken. When the bones :re removed twenty-seven femora were found which would indi-te parts of fourteen individuals. The earth had packed about the ter bones and had not fallen into the interstices of the bone heap low. The area of the disturbed earth was, in diameter 4 feet inches. The two boulders south of the ossuary had probably been ıced as hidden markers. Large stones had not been encountered fore in the sand of the knoll.

Just beyond the ossuary to the south was a large ash pit 48 inches

in diameter. In depth the ossuary was 16 inches, or from the top of the ground to the bottom, 27 inches.

Burial 6. This grave was discovered at 37 feet outside of trench 1, on the west side. It was 36 inches deep, 36 inches wide and 55 inches long.

This grave, unlike the others, seems to have been an original burial, that is to say, the earth had not been overturned more than once. The other graves seem to have been used several times, the bones being removed for ossuary burial or other disposition, and a new body interred therein.

The skeleton was that of an adult male of mature years (about 60). A heron's lower mandible was found at the forehead as if it had been used as a hairpin. The earth had packed about the limbs and neck and left in the clay-mixed sand a cast of the body. A black phosphate surrounded the bones, the remains of the animal tissue and burial wrappings.

Measurements of position gave the following data: knee to back, 17 inches; atlas to os innominata 2 feet 5 inches; atlas to end of tarsus, 3 feet 2 inches. Orientation: head east; face, south; left side flexed. Bones in good condition except those of the two lower arms.

Burial 7. Another grave was opened at 44 feet on the west side. It was 30 inches deep and contained only a few decayed vertebrae and a deposit of grave dirt. The larger bones had probably been removed for ossuary burial.

Burial 8. At 49 feet on the west side, grave 8 was found. It was 19 inches deep and contained a few decayed bones, part of a femur and the crushed remains of a child's skull. Over this grave was a layer of thin slabs. At the south end of the grave was a boulder 12 inches in diameter. It was 18 inches below the surface. The skull lay with the top east. A large piece of shale lay directly beneath the pelvis. Between this grave and the next was an ash bed 7 inches deep.

Burial 9. At 50 feet in trench 1 touching the line on the east side, 20 inches below the surface, the top of another ossuary was uncovered. Excavation disclosed a bone pile 48 inches from north to south and 33 inches from east to west.

Unlike burial 5, the first ossuary, this was a promiscuous heap of bones cast without order upon a group of twenty skulls arranged in an oval. Four inferior maxillae, six broken femora, five humeri, a number of ulnae, radii, vertebrae, an astragalus, tarsus, ribs and pelvis were found in the heap over the skulls. Of the twenty skulls,

ten were male and nine female. Parts of another skull were found, but the sex could not be determined.

Over the ossuary was a glacial boulder about 18 by 18 inches and a covering of shale and fossiliferous Chemung rock.

Four craniums from the ossuary were in good condition and four others in condition for measurements. All are interesting for the characters they exhibit.

Burial 10. At 50 feet on the west side of trench 1 was an empty grave 24 inches deep. Over it had been cast a quantity of broken stone. From the north wall of the ossuary, running north for a foot, was a top layer of burned stone. The earth here had not been disturbed.

Trench 1 was temporarily abandoned at 54 feet and a parallel and adjacent trench run on the west side.

Burial 11. At 5 feet in the middle of trench 2 burial 11 was discovered. The grave area was 4 by 4 feet and the depth 2 feet. The skeleton was that of a female. The skull was crushed. The arms were flexed to face, the left hand being under the left cheek.

Orientation: head, east; face, south; left side flexed. Head thrown back.

Burial 12. Burial 12 was at 10 feet in the middle west side of trench 2. It was an empty grave with disturbed earth to the depth of 48 inches.

Burial 13. Grave 13 was on the east side of trench 2 at 31 feet. It was 28 inches deep and contained the decayed root-eaten skeleton of an adult female. Area of grave, 3 by 4 feet. Orientation: head, east; face, north; flexed. There was a small ash pit at the head of the grave.

Burial 14. Found at 43 feet in the middle of trench 2. This grave was 28 inches deep and 3 by 3 feet in area and contained a male skeleton in a poor state of preservation. The tibiae were noticeably platycnemic.

Trench 3 ran parallel with 2 on the west.

Burial 15. Grave 15 at 4 feet on the west side of trench 3 was 19 inches deep, 19 inches wide and 30 inches long. There were no bones except the broken skull and the neck vertebrae.

Orientation: head, east-southeast; face, south-southwest.

Burial 16. Burial 16 at 44 feet on the east side of trench 2 was 36 inches deep and contained the pelvic bones and sacrum of a young adult. No other bones were in the grave. This fact seems to point to a removal of the skull and larger bones for reburial.

Burial 17. At 36 feet in trench 3, 18 feet south of ossuary 1, pit 5, the third ossuary was discovered. Six skulls were arranged in the form of an ellipse and the other bones thrown in the opening. These bones, besides arm and leg bones, included ribs, pelvises, phalanges, astragali, tibiae and vertebrae. There were two female skulls.

Burial 18. This burial was in the middle of trench 3 at 19 feet and 18 feet south of the ossuary (17). On the bottom of the grave a few potsherds were discovered but no visible trace of bone.

The problem of the many empty graves in the burial knoll was at first a puzzling one. Some graves contained a few ribs, some a pelvis, one or two arm bones and teeth and others were entirely empty except for traces of bone dust. As an hypothesis the theory was then advanced that the parts of skeletons, the larger limb bones and skulls had been removed from the graves and deposited in the ossuaries; that the graves had been left, open or filled, for use again. The ossuary burial is a Huron, or perhaps more properly a Huron-Iroquois custom, and has usually, perhaps entirely, been held a mere matter of superstition or ceremonial custom. The presence of empty graves and overflowing ossuaries suggested the theory of the economic utility of the ossuaries. The virgin earth being difficult to dig, but once disturbed never packing as hard as before, it would have been a matter of labor, time and space saving to exhume the remains of the dead and reinter them in an ossuary, and to use the empty graves again as burial places.

Those theories are only tentative and not to be regarded as established until numbers of other places shall have shown the same characteristics.

Excavations within the inclosure. The ground within the earth wall had not been disturbed since its aboriginal occupation except in places where sugar boilers had been erected.

Over one hundred and twenty basinlike depressions were scattered over the surface and varied in diameter from 3 to 10 feet, and in depth, from 6 inches to a foot. These pits were examined to discover their purport. Only six yielded anything in the way of relics. These consisted of flint chips, fire-broken stones, pottery fragments and arrowheads. The earth was not disturbed in any case, except in that of the deep middle pit, for a depth of more than 30 inches, the underlying soil being hard and impenetrable by crude implements.

Middle pit. This pit was carefully excavated. The soil was disturbed for about 9 inches below its modern surface except at the

bottom where there was an ash pit 4 feet in depth and 4 feet in diameter. Mingled through the soil of the large pit was found a quantity of pottery, flint and jasper chips, heat-cracked stones and a number of triangular flint points. In the ash pit at the bottom, objects of the same character were found.

The presence of this large central excavation presents the problem of its purpose. To solve this question a number of hypothetical answers are adduced for consideration: first, it may have been a central refuse pit; second, it may have been a place of assembly, its gradual slope affording a seating place; third, it may have been an inner stockade; fourth, it may have been a reservoir into which water was conducted from the spring on the hillside to the east; fifth, it may have been excavated to obtain earth for filling in the northwest corner of the inclosure, which is low and sloping toward a small gully which drains a spring marsh.

A careful examination of the ground showed that the northwest corner had been filled in, presumably with the soil excavated from the central pit. This examination also led to the several considerations. That the pit was not a reservoir is shown by the fact that ashes and refuse matter were found within it, though not in large quantities. That it was not a reservoir is also indicated by the fact that no ditch or outlet could be discovered. One may have existed, however, and the pit been a reservoir previous to its use as a refuse dump, if such it was. The refuse matter in the pit did not occur in such quantities that it would be differentiated from "occupied soil" elsewhere, so that it may have been an inner stockade or place of assemblage.

Articles of stone were not numerous and at the Gerry site only three celts were found and these outside the inclosure on the higher ground.

No hammerstones or anvils were found, but arrow chippings and triangular flint points were fairly numerous.

No bone implement or object of any description was found in the village site and the only bone object found whatever was the heron bill near the forehead of the male skeleton in grave 6.

Extent and character of occupation. There is evidence enough to point out that there was no long occupation of the site, the surface soil being but slightly disturbed to any depth. This evidence also suggests a settled occupation only in winter. The shallow pit seems to have been dug during the frozen season by alternately thawing and digging. If animal bones had been buried some would have remained, as human bones did elsewhere in the site.

This suggests that they were cast on the surface and afterward devoured by animals or lost by decay.

Purpose of the earth wall. The earth wall and trench are palpably parts of a fortification. From the crest of the wall, without doubt, rose a line of palisades which surrounded the inclosure. Indeed, traces of these post holes were discovered all along the ridge.

One of the strange facts which at once appears a curious anomaly is that if this inclosure had been a fortification why such a position should have been selected, when from the hillock to the west, arrows and stones or other missiles could have been easily thrown into the wall-protected inclosure. This very thing would have rendered the fort of little use in times of war or invasion. Two considerations then appear: first, that it was not a true fortification designed to protect the inhabitants from men only, but made for a protection from the wolves and other wild beasts which infested the region even in historic times; or second, that the enemies of the age held the acres of the dead or sacred spots and would not under any provocation desecrate the burial ground on the hill to use as a vantage point from which to assail the living within the inclosure which the burial knoll overlooked.

Camp site outside of inclosure. To the southwest of the burial knoll rises another glacial kame which in length runs east and west. This kame contained ten large ash pits, the one in the summit being 5 feet deep and filled with carbonaceous earth, burnt sandstone and charred corn. Between this kame and the inclosure, the earth had almost everywhere been disturbed and there was a heavy mixture of white ash and charcoal as if the vegetation and trees had been burned over many times. No implements were found here except a celt at the west end of the kame.

The soft mellow loam here also suggests its employment as a garden spot, possibly a cornfield. Charred corn was found in some of the pits.

Age of the remains. Several considerations determine the age of of the remains. The absence of European articles at this place is good presumptive evidence that it is prehistoric. The similarities between the characters of the occupation and those of the early historic Erie point out an early Erian people. That they were early Iroquoian is evident from an examination of the artifacts but that they were early Erian is manifest by certain differences in form of culture and occupation. The remains would seem to be at least 500 years old, and even a greater age may be safely ascribed.

A PREHISTORIC IROQUOIAN SITE[1]

ON THE GEORGE REED FARM, RICHMOND MILLS, ONTARIO COUNTY

By ARTHUR C. PARKER

This site, first examined by me in 1905, affords an unusual example of a type site that we may study as a definitely prehistoric Iroquoian place of occupation. From it we may gain some inkling of the ancestors of the historic Seneca and indeed make some surmises as to their more remote progenitors. This site is of the Burning Spring cultural horizon, but is not of so great an age.

It was not until 1916 that it was possible for the writer to make any intensive study, when through the generosity of Mr Alvin H. Dewey, president of Lewis H. Morgan chapter of the New York State Archeological Association, several trips were made to it, and supplemented by nearly a month's study of Mr Dewey's remarkable collection made from this site and from the surrounding region. This collection is now the property of the State Museum. Mr Dewey's interest in this site and his conviction of its importance as a key site to Seneca and general Iroquoian archeology has inspired the paper here presented.



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The Reed Fort Site

The general location of the Reed Fort site is in the northwest portion of the township of Richmond, Ontario county. It is located on lot 50, about one-fourth of a mile due east from the line of Livingston county and 280 rods due south of the Livonia-Richmond Mills road. From the town or settlement of Richmond Mills, measured from the bend of the south-bound road, the site is almost exactly 1 mile up the outlet of Hemlock lake. It is frequently called the "Richmond Mill Site" from its proximity to the village of that name, situated in the narrow valley and between the steep hills to either side.

The site may be reached either from the Alva Reed farm or from the George Reed farm, it being situated upon the latter. The nearest railroad point is Hemlock, a small terminal station on the Lehigh Valley Railroad, Hemlock branch, out of Rochester. A better route is probably the Erie Railroad out of Rochester to Livonia Station. Here auto or horse liveries are available and the site may actually

[1] From the Transactions of the New York Archeological Association, Morgan Chapter, v. 1, no. 1, Feb. 1918.

ROQUOIAN SITE[1]

ARM, RICHMOND MILLS, COUNTY

C. PARKER

ne in 1905, affords an unusual
ly study as a definitely prehistoric
rom it we may gain some inkling
eneca and indeed make some sur-
genitors. This site is of the Burn-
; not of so great an age.
as possible for the writer to make
h the generosity of Mr Alvin H.
Morgan chapter of the New York
several trips were made to it, and
; study of Mr Dewey's remarkable
from the surrounding region. This
the State Museum. Mr Dewey's
nviction of its importance as a
Iroquoian archeology has inspired

d Fort Site

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nond, Ontario county. It is located
a mile due east from the line of
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h, out of Rochester. A better route
ut of Rochester to Livonia Station
available and the site may actually

ew York Archeological Association, Ma
3.

Plate 63



Fig. 1 View looking toward the neck or upper end of the Richmo Mills site. The trees on either side mark the beginning of the precipit slopes.



Fig. 2 View looking down the Richmond Mills site. There are refuse heaps in the slope to the right.

e entered by following the road due east, making allowances for ıe bends near the Ontario county line, to the first southeast road own the hill, 5¼ miles from Livonia. A road running down the ill one-fourth of a mile farther on will also lead to Richmond ills. The south road should now be followed for three-fourths of mile to the farm of George Reed, through whose barnyard runs lane directly to the site. The unselfish and kindly interest of Mr eed has unfailingly opened the gate to the explorer who had a enuine scientific interest.

Located from the standpoints of aboriginal geography, the Reed ort site is situated just off the main trail from Allens hill to Hem- ck, which in general followed the valley of the outlet from its ıncture with Gates creek. The trail from the outlet of Conesus ke to Honeoye lake crossed the Hemlock outlet about a mile south- est of the site, but a supplementary trail still in use when the wnship was settled passed directly over the site and southward, gain striking the Honeoye trail at the headwaters of the larger ream forming the northeast side of the site. Just beyond are two on-Iroquoian sites on the P. P. Barnard farm. The important original sites to the southward are those at the foot of Hemlock ke and at the outlet of Honeoye. It is along the Honeoye outlet om the lake to the Genesee that many important sites are found. early all, if not all the sites near the Reed Fort site are prehistoric ıd pre-Iroquoian. We except only the later historic sites at Hem- ck and at Honeoye destroyed by Sullivan in 1779.

The Reed Fort site stands alone and in a setting that is non- oquoian. This suggests that it was settled or occupied soon after ıe driving out of the non-Iroquoian tribes from the region. We ın not even be sure that when the site was seized for occupation ıe original claimants of the region were all driven out, for there ave been discovered fragments of charred human bone that look spiciously like the evidences of the torture stake of a neighbor- od victim. Mr Dewey has in his cabinet the fragment of a lower w, one end of which is carbonized. It has a projecting chin that ems to betoken the stubborn resistance of the victim to the trusion of the Iroquois and his defiance of them even in the ames.

During the past seventy-five years this site has been gone over collectors who have carried off a very large amount of material. uring the past twenty years excavators have been particularly tive and thus far no object of European origin has been discovered any pit or refuse heap.



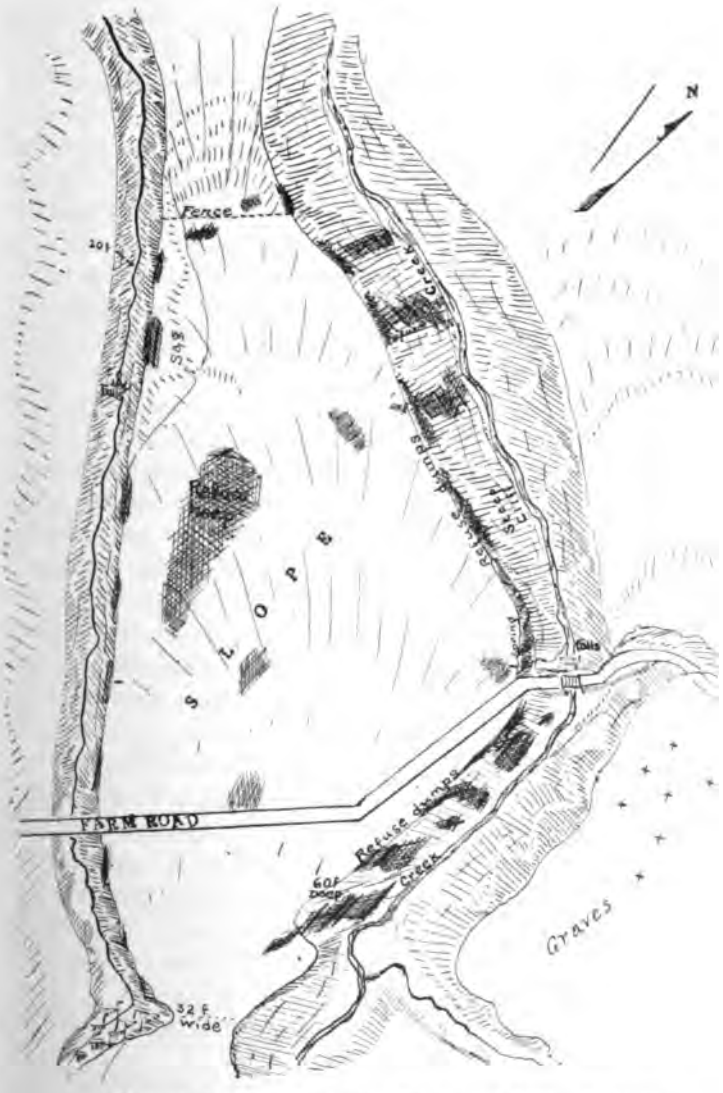
Map of the Re

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Plate 64



Map of the Red Fort site, Richmond Mills, Ontario

The Reed Fort site is a sandy arm of the terrace projecting nearly westward into the Hemlock valley. It covers a sloping sandy hill lying between two brooks that have cut deep ravines. The place is a natural fortification since the brooks at the southwest end come within 30 feet of each other, measured from the rims of their banks. The effect is a natural inclosure easily protected from human and beast enemies. From this upper neck the area gradually expands to a point directly above a fine spring that flows into a large brook on the north bank. From this point the site gradually tapers down the slope until it reaches a steep knoll the base of which rests in a more level space between the brooks, which again approach within 40 to 50 feet of it. The brook on the northwest side is shallower at the upper end but quickly eats its way into the shale and plunges over a series of falls until at the lower end of the fortification the banks are 30 to 40 feet in height. The brook on the opposite side is deeper and throughout the length of the hill its depth is 40 to 60 feet with high shaly embankments impossible to climb in places. There was once a gas spring in the bed of this creek below the falls. Along these embankments, particularly at the upper end, the refuse heaps are found scattered over the end of the bank and down the talus slope almost to the bed of the brook. In fact the entire outline of the fortification is nearly bounded by refuse heaps.

The site covers an area of about 5 acres, which was ample space for a considerable Indian village. When the site was cleared about 1850, it was covered with a dense growth of large oak trees, with pines at the lower slope.

The Seneca Indians in 1850 had a settlement near Lima and frequently passed over this site at the time it was cleared and frequently hunted, fished and worked in the neighborhood. They told the original settlers they had no idea who had lived on the site, and that the pipes, flints and fragments of pottery were of as much interest to them as to the settlers who opened up the tract. We suspect, however, that the Indians *did* have some knowledge of its occupation by their own ancestors but did not wish to talk about a "dead village." There was once a superstition about bringing back the ghosts of the dead by so doing.

From this time on antiquarian and amateur archeologists commenced their search for relics, and the first spring plowings were always a signal for relic hunters to pick over the surface for finely shaped flints, pipes and shell and bone trinkets. Not much excavating was then done. During the recent years the most successful
rs so far as we know have been Alva Reed, P. P. Barnard

of Honeoye, Alvin H. Dewey, H. C. Follett and G. R. Mills of Rochester, and Frederick Houghton of Buffalo. A large share of the earlier material found by individual collectors is in the New York State Museum collection, but an even larger collection has been acquired through the patient research of Mr Dewey assisted by his enthusiastic helpers, Casper Keer, H. C. Follett and George R. Mills. No graves were found until about 1912, when Frederick Houghton, excavating for the Buffalo Society of Natural Sciences, found a burial site on the projecting nose across the ravine east of the spring and nearly opposite the falls. He found no objects in the graves. Our examinations of this site made in 1905, 1910, 1911 and 1916, together with the records of Mr Follett and Mr Dewey, have resulted in the series of notes here given.

It was found that the soil in nearly every portion of the site was deeply stained and that there were natural depressions irregular in shape that seem to have been used as refuse dumps. Even after much cultivation for farming purposes, the soil still shows blackened areas that outline the village dumps. Some of these pits and deposits are 6 or more feet in depth and filled with broken stone, ashes, animal bones, charred corn, and broken implements with an occasional fine specimen in good condition. As we have previously stated, the larger deposits were along the northeast bank, sloping toward the falls. In many of these sidehill dumps the débris in which ashes are mingled are several feet in thickness and have led some excavators to think that the site was occupied for a prolonged period. Our opinion is, however, that a village of 150 to 200 people occupying this site for 10 years would produce the amount of ashes found in the dumps, especially if refuse had been consumed as well as fuel, but others strongly argue that the occupation was as long as 50 years.

The present appearance of the site is that of a sloping sandy hill edged by ravines and fringed with trees. The flanking brooks flow the year around and the larger one has a considerable fall over which the farm owners have built a bridge upon which the road across the site runs. Above the falls it is possible to walk along the edge of the brook and up the ravine for a considerable distance. The ravine is wide and has a flat bottom which gives ample space for the meandering of the stream. Near the upper end of the fort, from the base, a natural trail runs up the embankment along the projecting nose, but access was possible though not easy from almost any other point. Along this embankment from the falls southward and up the ravine the débris may be seen mixed with the talus. An

excavation reveals quantities of animal bones, broken pottery and fragments of implements.

From the lower end of the fortification the trail runs down to a sloping flat that gradually leads to the valley level. From this point it is about one-fourth of a mile to the Hemlock lake outlet.

The character of the implements found on the site are without question prehistoric Iroquoian and presumably early Seneca. Two sites three-fourths of a mile to the northeast, on the Alva Reed farm, are non-Iroquoian, as are most of the contiguous sites where relics are found in any quantity. One site on the Alva Reed farm, situated west of his house and in the woods, is probably similar in age to the fort site. It is Iroquoian.

Where the Implements Are Found

Relics on almost any site are first found on the surface as the result of excavations, leveling, land clearing or plowing. This was true of the Reed site, which has been "surface hunted" since it was deforested. The implements found on the surface are those that have especially resisted surface weathering and decay. On this site, as on others, these are anvils, matetes, hammerstones, chipped flints, celts, fragments of pottery and occasionally shell, bone and slate articles. Frequently animal bones are also found. The more fragile articles are seldom found on the surface.

Many specimens have been found in surface dumps or deposits as well as in refuse pits. These occur on portions of the site and seem to indicate the former presence of bark long-houses. One deposit on the southwest side near the falls of the smaller brook is nearly 30 feet long and 6 feet deep.

The inhabitants of the site, however, carefully threw most of their refuse over the banks and into the brooks. Much of this refuse collected in slides or dumps along the banks and became covered with the disintegrating shale and the overwash of storms. Where the deposit became obnoxious there seem to have been large fires of waste wood for the purpose of incineration. Indeed many of these dumps, especially near the bottom of the slopes, are covered by thick layers of white ashes and in some cases charcoal. To examine the banks one would think that the inhabitants had purposely kept up heavy fires to hold back either the invasion of human enemies or of the no less savage mosquitoes.

The dumps along the edges have proved the most fertile sources of specimens and one is surprised at the fine objects that were apparently discarded with refuse, such as fish hooks and bone combs.

After nearly 20 years of experience in New York archeology it is the opinion of the writer, based both upon his excavations and upon a knowledge of Iroquoian customs, that articles of value were frequently cast aside with the bones of animals eaten for food as a sacrifice to the spirit of the slain forest-brother who gave of its pelt and its meat that the man-animal might be clothed and fed. Trinkets were also often sacrificed to plants and vegetables. During the annual wild pigeon hunts of the Seneca, wampum beads, colored feathers, brooches of silver and other trinkets were buried beneath a little fire under the trees where the pigeons were killed. The arrow points or spears that pierced and slew certain animals also were never used again but thrust into the pits with their bones. We believe that this is the first explanation of the abundance of useful articles, apparently carelessly discarded, that has appeared to explain their presence in New York refuse pits. Without doubt many articles were also lost, or without intention swept out in the rubbish of the lodges.

Mr Dewey describes the dumps as follows:

"Starting at the bridge across the ravine on the north side of the site, then going south, the ash deposit excavated in September and October 1915 is found all the way around to the neck of the site. The first slide of any importance is about 25 feet from the bridge. It has an average width of 70 feet and extends up and down the bank for 40 feet. From this point south for a distance of about 100 feet there is no evidence of any deposit. The banks here are steep with no growth of shrubs or trees and any refuse thrown over would have gone into the brook at the bottom and have been washed away by high water.

"The next deposit is a small one having a width of only 34 feet and a length of 40 feet. Forty feet from this point begins the third deposit. Conditions here would indicate a double slide. It had a width of 50 feet but was intermixed with shale and overburden. The deposit was very thin and contained few artifacts. Farther on by 50 feet to the south occurred the fourth slide or deposit. This was by far the largest and was 105 feet wide. At this point the ashes were deep in places though quite thin in others. Many artifacts were found in this dump, including two fine bone fish hooks, numerous awls and some very fine potsherds. A perfect effigy pipe of stone was found in this place. The fifth dump was 76 feet farther south where the bank is 50 feet high. The deposit had a width of 75 feet and was rich in bone material.

" We have here, therefore, a deposit of refuse of a known extent f 334 feet with an average width of 20 to 25 feet. The ashes vary ı depth from a few inches to several feet. One pit was of solid ·ood ash dry and clean, 6 feet long and 5 feet 10 inches deep. Not n artifact was found but at the bottom was a quantity of large flat :ones that plainly showed a long contact with fire and heat."

Mr Dewey has not here described the deposits on the southwest ank along the smaller stream discovered by George R. Mills. Here ıe deposits have been rich in material, though of far less proortions.

Mr Harry C. Follett, who for some time has been an interested nd patient investigator of aboriginal sites in the Genesee country, as left a vivid account of the site in his record which he has turned ver to the State Museum. Mr Follett says:

" The surface of the village site is dotted with black spots which rove to be refuse. The bank of the ravine encircling almost completely the entire site is rich in refuse and has been completely dug ver and over in eager search by relic hunters for implements, and is to be deeply regretted that it could not have been done in a :ientific manner and complete data taken to enable us to form some efinite conclusions of the strange people.

" In September 1915 Mr Dewey and myself were escorted to the te by George R. Mills of Rochester, who had been excavating in ıe refuse on the bank of the north ravine and who had disclosed ɔme large deposits of ashes. The work which had previously been one here is similar to the devastations on many other sites. Excaations had been started in the heart of the pits, following up the anks to the top, leaving the bottom, the most important in many ıses, buried under the débris. To gain access it was necessary to o considerable work. While working here we were visited by Ir George Reed, who gave me considerable information for which ·e are indebted to him as we are also for the courteous way in ·hich he treated us.

" By making tests along the banks we were convinced that there ·ere several pits which had not been disturbed. These were natural epressions formed by wash in the shale rock and had become filled ·ith the ashes which had been deposited at the top of the bank and ·ashed down filling the holes from 6 inches to 6 feet deep. This ·as conclusively proved by thorough work in each pit which ·rminated at the top or nearly so ranging from the bottom from 25 ɔ 100 feet gradually drawing to a point at or near the top of the ank. These pits in some places were rich in bone material and



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Plate 65



CERTAIN TYPES OF BONE ARTICLES FROM THE RICHMOND MILLS SITE. NAT. SIZE.

some were almost void of any kind of implements. They produced specimens of elk teeth, elk and deer horns, bone awls, perforated bears and racoon teeth, also many racoon penis bones, a few perforated potsherds, worked bone of all descriptions and manner, bear molars polished and perforated representing the human foot, polished celts of the regular type, a few shale implements, together with various types of flakers, a few net and line sinkers and bone fish hooks.

" While here we viewed a collection made from this site by P. P. Barnard, of the town of Richmond, and which contains some of the finest types of bone implements and ornaments I have had the opportunity to inspect. There are approximately 300 triangular points (which is the predominating type), 8 or 10 celts of fine workmanship, 10 or 15 elk and bear teeth, cut, polished and perforated bone beads highly polished and showing much wear.

" Personally in my excavating I did not encounter any human bones but am told that human skulls have been found in the refuse.

" The work performed thus far leads me to conclude that the refuse was deposited at the top of the bank and washed down as previously stated.

" Parched corn and even cobs are frequently encountered. I also found what I determined was a squash seed. Beans were found, but were scarce.

" I do not know of nor have I read of another site anywhere in New York State comparable with this for variety, richness in implements, masses of débris."

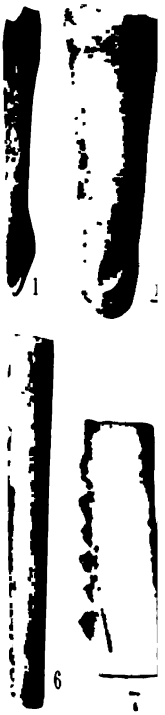
Mr Follett afterward discovered that there had been a natural gas spring in the creek bed.

Specimens from the Site

The cruder artifacts from the Reed Fort site are stone anvils, natetes or lap stones, hammers of several types, notched sinkers and fire-burned stones.

The anvils and mealing stones are fragments of flat stone from 1½ to 4 or 5 inches in thickness. They are seldom more than a foot in diameter. Some are nearly square and others are more circular, but no attempts were made to more than approximate these geometrical proportions, and this only for the sake of convenience in handling. These stones are similar to those found on many of the earlier sites in this region.

The stone hammers are stones either natural or worked from pebbles and of a size convenient for holding in one hand. The



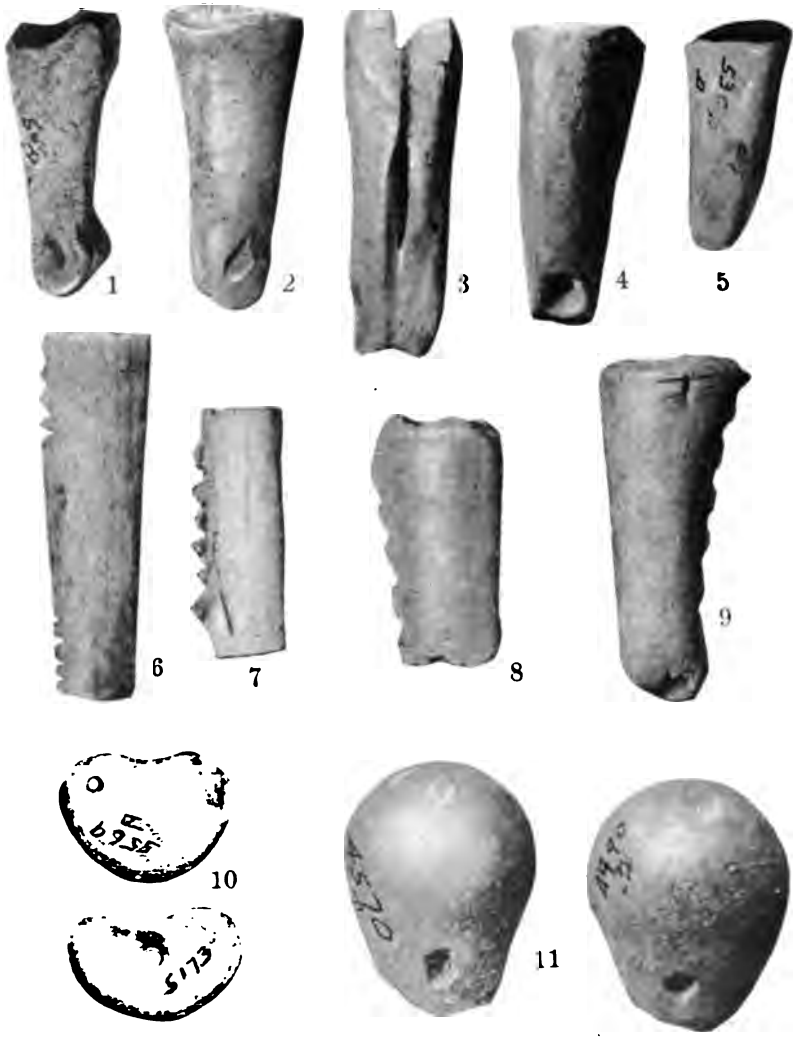




CERTAIN TYPES OF BONE

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forated; 10, perforate

Plate 66



CERTAIN TYPES OF BONE ARTICLES FROM THE RICHMOND MILLS SITE. x7/8

1, phalanx with upper end broken in and apex perforated; 2, phalanx with apex worked and upper end carefully cut out; 3, phalanx partly bisected; 4, similar to 2, but showing more work; 5, phalangeal cone; 6, serrated rib; 7, similar to 6; 8, 9, anterior tips of lower deer mandibles, notched and perforated; 10, perforated joint surfaces; 11, perforated ball joints.

ullers, used for grinding and cracking corn, are more symmetrical an ordinary pitted hammerstones and the flat faces show evidences grinding on the mealing stone, despite the shallow pit sometimes present in combination hammers and mullers. Many of the ullers are neatly formed and quite symmetrical, while some are ceptionally so and resemble chunkee gaming stones. Some of ie hammerstones from this site are made from hard concretions. it most are formed from water-washed pebbles. Some interesting ammers are formed from celts, the cutting edges of which have en broken off.

The hammers and abrading stones from this site may be classified follows: (1) natural pebbles discoid in shape and showing use hammering on the edges or circumferences; (2) natural pebbles discoidal shape showing a battered circumference and having ts worked in on either side of the flattened surfaces, the two pits ing opposed to give a thumb and finger hold; (3) natural pebbles duced to better form by grinding, abrading and polishing, the lges of which show use as hammers and the sides pitted for thumb id finger hold; (4) the same form showing evidences that the one was used also as a muller; (5) round stone hammers showing ttering on two opposed faces, and not pitted; (6) naturally unded stones showing battering in several faces; (7) stone balls tificially worked to form and showing primary use as hammers ith a probable secondard use as club heads of the type enveloped raw hide; (8) broken celts used as hammers, butt and broken t being the battering surfaces; (9) concretions used for batter- g; (10) flat, thin pebbles showing use as hammers on one end.

The collection contains more than three hundred selected mmerstones of all these types, while in it also is a box of 3 cubic et in capacity filled with broken and second-rate specimens. Mor- rs and hammerstones have been found on the surface in the mps and even in the creek below the site.

Other stone objects are cylindrical pestles (parts of eight being und), stone beads, stone disks, perforated disks, like Jefferson unty specimens, and grooved bolas or club heads. The celts are stly well formed and thick. Some show most excellent polishing. ie thin splinters of slate having chisel edges are also interesting, ere being about seventy-five in the collection. No grooved axes ve been found here.

The arrow points of chipped chert (commonly called flint) are the recognized Iroquoian form, that is to say, triangular and thout notches, stems or barbs. This is so far true that out of

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1195 specimens available for actual study only eight have notched stems. Only sixteen knives and spears of all shapes have been enumerated. There are scrapers but no drills.

Perhaps the nearest approach to ornaments in stone which the site affords are small pieces of shale having one perforation for suspension. They do not resemble pendant gorgets.

Stone pipe bowls have been found in several instances. Some are crude bowls of sandstone having large beveled stem holes. Others are more neatly formed and resemble small urns. This is one early Iroquoian type and its distribution is quite general in the Iroquoian area. One of these stone bowls in the collection has a face effigy worked out on the side away from the smoker.

Two striking pipe bowls and several fragments were found by Alva Reed in the ash and refuse beds. These bowls are human and animal effigies represented as clinging to the ovoid bowl. One striking specimen represents a lizard or an otter and is similar in general concept to the effigy pipes described in the Ontario Provincial Museum reports by Col. George E. Laidlaw.

Sherds of broken pottery vessels are scattered throughout the site and especially in the dumps. The pottery is of the usual Iroquoian make so far as its consistency is concerned. Some sherds are thin, as thin as one-eighth of an inch, while one sherd is three-fourths of an inch thick. The general shape of the vessels is Iroquoian, like the pots of Jefferson county or the Mohawk valley, with the exception that the collars are higher and there is not the same degree of overhang. The decoration is distinctive. It is the triangular plat filled with parallel lines, each adjoining plat having the lines running at right angles to the other. This is varied by parallel lines above and below with occasional dots and dashes regularly placed. Iroquoian pottery generally has the decorations drawn on with a bone or wood stylus while Algonquin forms generally have the pattern *impressed* in with cord wrapped paddles or sticks. Most of the pots from this site were very large, larger than the later Seneca made. The Reed Fort pots in some instances must have held 6 to 8 gallons while the smaller pots probably held 6 to 8 quarts.

The Reed Fort vessels were of the period when effigy faces were placed at the projections on the raised collars, in this respect being like the pottery from the Atwell Fort in Onondaga county, from the St Lawrence site, Jefferson county, and like that from Burning Spring,[1] Cattaraugus county, though the last named site is even earlier in its occupation than the Reed Fort. All these sites are

[1] See Annual Report, Director of the State Museum for 1905.

Plate 67



CLAY AND STONE PIPES FROM RICHMOND MILLS. x¾.

1 coiled rim; 2, face effigy with thick features; 3, face 4, square topped or castellated bowl; 5, face with skin n over its head: (the slots on the chest are typical of d modeling on pipes); 6, double faced pipe; 7, 8, 9, ed bowl shape. 9 has a crude face. Specimens from ion, in State Museum.

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similar in character, except that at St Lawrence, being projections of hills into valleys and having a walled neck. No complete pottery vessels are reported from the Reed Fort.

Of large interest are the specimens of clay pipes from this site. In general type they are like the pipes from prehistoric Onondaga sites in Jefferson county though some types are distinctly Senecan or Seneca-Neutral. The bowls are round with decorative lines and dots; some have square raised rims, like the so-called Huronian forms, and others have human face effigies modeled on in the characteristic Seneca style. One pipe in the collection has the face of a woman with a wildcat robe over the head. Its counterpart in technic is Mr Dewey's pipe from Stone Church, Genesee county, which has two figures seated side by side, one male and the other female. One stone pipe shows a naked and grotesquely formed female and another is a phallus in clay.

The implements of bone constitute the largest range of forms. Almost every bone in the various food animals seems to have had a use, especially leg and jaw bones. Even the teeth were drilled or grooved for pendants and beads.

Bone awls have been found in large numbers and Mr Dewey has compiled a list of 525 specimens positively known to have been found on the site. The various types are represented in plate 65.

Beads or small cylinders of bone were worked from the leg and wing bones of birds and small mammals. Many are highly polished. Some of the bone cylinders are as long as 3 or 4 inches and seem similar to the tubes used by the Seneca shamans and claimed by them to have been swallowed in the process of extracting disease from their patients. The phalangeal bones of deer and bears were worked in many varied forms, some being partly sawed in twain and others worked into cones that may have been fastened on the fringes of the leggins like the more modern tin and brass jinglers of the Indians of the historic period. Some may have been the cups used in the cup and awl game. There are many examples of ball joints perforated as pendants and some specimens of the toothless anterior portions of deer jaws cut, polished and notched.

Of considerable interest are the fish hooks of which we have more than twenty specimens besides those in process of manufacture (see figure 25). The series illustrating this process is of considerable interest and shows that two hooks were made at the same time by making an oval link out of a section of bone and then cutting it in the middle. The books are without barbs and

Bone and antler implements from Richmond Mills, Ontario county. Dewey collection, State Museum. x⅔.

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...e book is rather long
... most instances slightly
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Fig. 25 Earl

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...26 Antler combs fro
... fig. 65, Mills, William
...ge Site. Ohio State H

similar in appearance and process to those descril F. W. Putnam from Madisonville, Ohio, or by Profes the Baum and Gartner sites.[1] In general it may be s that the hook is rather long and sharp and that the en is in most instances slightly knobbed or grooved for t of the gut or cord line.



Fig. 25 Early Iroquoian fishhooks. x1/1.

Of importance to the comparative archeologist are bone draw shaves found in the refuse heaps. The unique in New York sites and their presence in the is significant. They are commonly found in Ohio site



Fig. 26 Antler combs from the Richmond Mills site, Ont

[1] Cf. fig. 65, Mills, William C., Explorations of the Baum Village Site. Ohio State Historical Society, Quarterly, 15

culture and Professor Mills has several hundred specimens from Ohio localities.[1]

Perhaps the most striking of all the objects found at the site, except the pipes, are the antler combs (see figure 26). The first specimens found were plain combs, one with three teeth and one with four. Each had a hole drilled through the top projection. Then an ornamented comb was found having a top like an arched doorway and three holes bored on the points of a triangle. Later specimens were found having at the top effigies of birds, either a heron or a woodcock. The teeth of the combs are worked out round and measure about three thirty-seconds of an inch in diameter. The points have at one-eighth of an inch above the tip a groove or several grooves incised around them. In these combs we have the prototypes of the later Seneca combs with complex effigies of birds and animals and many teeth evidently sawed in with a metal saw derived from European traders.

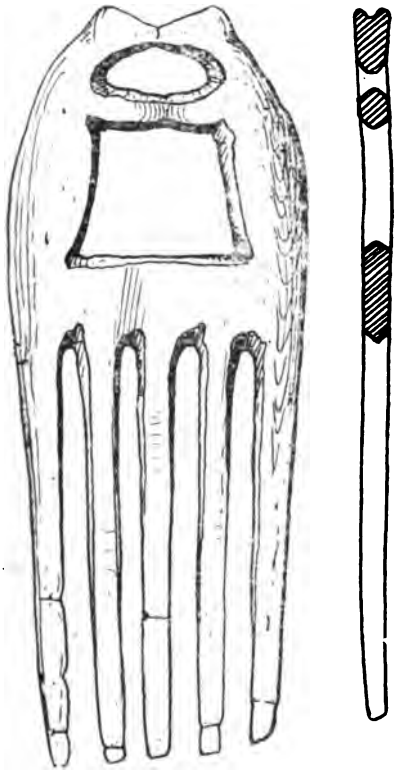


Fig. 27 Notebook sketch of unique five toothed antler comb from Richmond Mills site. Dewey collection.

Other antler objects in the collection are a scraper handle, chisels and pins or pitching and flaking tools, arrow points, digging tools and a remarkable antler prong drilled near the base and having a series of serrated notches at the basal end. Doctor Beauchamp, who examined it, thinks it may have been one of the "horns" of a chief's emblem. This is quite plausible.

The teeth of animals, especially the tusks, were favorite forms for perforating and grooving with these prehistoric people. The teeth of the bear, fox, wolf and elk were perforated as pendants. The

[1] Ibid., p. 54, 55, fig. 37, 38.

molars of the bear were especially prized and were cut and perforated at the root. Some have one root-prong cut off and the tooth worked down in the shape of a human foot. Several specimens, indeed, have the toes indicated by incisions. Beaver teeth were also cut at the roots and probably used as small scrapers or chisels. Some of the beaver teeth are split and ground thin, probably for shaving tools or knife blades for wood working. One joint ball hollowed out like a small cup was found (figure 28).



Fig. 28 Joint ball hollowed out like a small cup

Bones needles are among the more fragile articles, and twenty-nine are known to have been discovered, besides numerous fragments. They are thin segments of bone worked long and smooth and having one or two eyes in the center.

Harpoons of bone and antler are also to be mentioned. They are similar to those found on Algonkian sites and have four or more barbs at the point. We should not neglect to mention antler arrow points, conical in type, and thin cone and antler points.

Shell ornaments, while not prolific, are not uncommon. There are beads drilled from the columellae of large marine shells and disk beads of varying sizes. A few specimens resemble small circular gorgets and are drilled at one or both edges and opposite. There is no shell wampum of the type used in historic times. Some small shells are found drilled at the lip for attachment. These are generally periwinkle shells from fresh-water sources. Valves of the Unio are found worked as potters' smoothers.

No metallic objects have been reported except several pieces from the surface which may have been lost by the later Seneca when they passed over the trail or as they camped upon it. These are a few scraps of European brass, several hand-made nails and a small chunk of iron. All may be regarded as intrusive.

The bones of animals cracked and split for the marrow or for boiling in soup are abundant. Careful observation will show that literally "bushels" are to be found. So far as our observations go the following bird and animal bones have been identified: deer, moose, elk, black bear, raccoon, woodchuck, muskrat, rabbit, skunk, gray squirrel, field mouse, fox, dog, otter, mink, wild cat, panther, wolf, Indian dog, beaver, box turtle, snapping turtle, wild

rkey, heron, duck, eagle, snipe, horned owl, snake, sturgeon and her fish.

Of plant foods there have been discovered seeds of maize (cob ıd kernels), squash, bean, hickory-nut, acorn, butternut. Some ıarred grass and some bark have been found. The use of tobacco ıay be deduced from the pipes.

ist of Objects Known to Have Been Found in the Reed Fort Site

The abundance of specimens found in the Reed Fort site may : known from the list compiled by Mr Dewey. This list records ıly the specimens actually in known collections and does not clude the hundreds of specimens taken out by collectors who came



Fig. 29 Certain stone and clay artifacts from the Richmond Mills site. 1, sandstone pipe bowl; 2, animal effigy grasping pipe bowl, statite; 3, fragment of knobbed pipe stem; 4, fragment of face from pipe bowl, clay; 5, face from raised corner of a pottery vessel.

ır a day's or week's excavating and left no record. As a matter fact, investigation has shown that articles from the site have :en scattered all over the country. This is especially true of the ıne implements.

Mr Dewey's list is compiled from the catalogs of his own collection in the State Museum with that made by Alva Reed. The lists of George R. Mills, P. P. Barnard and Harry C. Follett have also been tabulated, together with those of several other local collectors. It is thus seen that the Dewey compilation is only a fragment of the total. It may be taken as an average proportion of articles in the total accumulation. Some exceptions in individual instances may be made; however, since earlier collectors collected mostly celts, arrow and spear points, pipes and the more striking implements of bone, many more arrow points, celts, and the like, may have been picked up in proportion than hammerstones, bone needles, broken pipes, and pottery rim fragments. The earlier collectors probably almost entirely ignored the rougher hammerstones and metates. The statement that the list is an "approximate third" must therefore be kept in mind as an estimate only. It must be regarded, however, as an estimate built upon a careful study covering a period of years of observation; and yet, as we have remarked, estimates are quite certain to be inaccurate in some details. The list of known material follows:

1187	Triangular points
8	Notched arrows
16	Spears, all shapes over 4 inches
32	Celts
20	Grooved stone war club heads
21	Stone (slate) implements with worked edge
265	Pitted or hammerstones
33	Metates or mortars
8	Pestles, broken
40	Net sinkers, some very fine
16	Stone disks, not perforated
14	Stone disks perforated for suspension
16	Stone beads
1530	Pieces of pottery ornamented
8	Pottery beads
12	Pottery fragments, showing effigies
12	Pottery fragments drilled
120	Shell beads
384	Bone awls, pointed
72	Bone awls, blunt point
56	Bone punches
6	Bone arrow points
26	Bone fish hooks
9	Bone harpoons
708	Bone beads
28	Bone pieces perforated for suspension other than beads

7	Bone combs, whole or in part
24	Bone needles
9	Bone draw shaves
1	Bone ceremonial object
63	Worked deer antlers
3	Hair pins
2	Tally bones
62	Bear's teeth perforated
44	Bear's teeth not perforated
29	Elk teeth, perforated
7	Elk teeth, not perforated
43	Moose, wolf, dog teeth
9	Stone pipes, whole
5	Clay pipes, whole, plain, or ornamented
28	Pipe bowls, stone or clay
82	Pipe stems, 2 inches long or over

Significance of the Specimens

Implements and artifacts from any archeological site may be divided into six classifications according to their cultural significance. These are:

1 Permanent forms common throughout the continent, or more narrowly to a general geographical area.

2 The general current types common to the cultural period to which the site belongs. On a single site, the normal forms.

3 Survivals of forms more commonly found on older sites, or found frequently in sites of another culture.

4 Forms that show experimentation, or that they are in process of developments; forms that have not arrived to the status of either 1 or 2.

5 New forms found sparingly in the site but more frequently in later sites.

6 Aberrant or unique forms not found elsewhere.

By classifying the specimens from the Reed Fort site by these standards we may be able to trace something of its history and later influences, culturally speaking. Here we find hammerstones and lap-stones, bone awls, chipped flints and celts falling in class 1. In class 2 are the heavy celts, the triangular arrow points, bone awls, needles, worked phalanges, bone beads, perforated animal teeth, pottery decorated by plats of triangles filled with parallel lines drawn on, pottery pipes with raised edges on the bowls, either square, trumpet flaring or having various effigies modeled on, vase or bowl-shaped stone pipe bowls with large beveled stem holes, effigy stone pipes with otters or lizards worked out on them, crude and rather large shell beads, bone

combs with three and four teeth, harpoons, fish hooks, etc. In class 3 are found the metapodial bone scrapers or draw shaves, roller or cylindrical pestles, not found in any later sites, pottery disks ornamented like the later shell "runtees," conical bone arrow-points, etc. Certain forms of the pottery and pipes fall in classes 4 and 5.

The absence of certain objects is significant also, particularly as these certain objects were used by other and adjacent tribes, not of the same stock, at the same period of time. These are grooved axes, many notched arrow points, steatite vessels, mica ornaments, native copper implements, monitor pipes, clay pipes with sharp elbow bend below the bowl, etc. No banner stones, bird stones or two-holed gorgets are to be found, and no bone or clay object is decorated with curved lines. In this we have proofs that the culture of the Reed Fort site was a crystallized one and of some standing in point of time. We may also see in this the action of certain taboos, prejudices and conventions.

To solve the riddle of our site we must now ask with what other sites the objects listed under classes 2, 3, 4 and 5 compare. In these things we may find some clues.

An examination of the most important fort sites in the Genesee country plainly shows that the Reed Fort site is Iroquoian and Seneca, of precolonial time and possibly pre-Columbian. It may antedate the foundation of the Iroquois Confederation. The specimens found show that the people were in closer touch with their neighbors to the west of them than those to the east, though in point of general culture they were the same. But the large high-collared pottery puts the contact with western New York. It was but a day's journey or at most two to the country of the lower Cattaraugus and the lower Allegheny. The Niagara frontier was but 80 miles distant. In all this country lived the Erie, the Neuter, the Kahkwa and the Wenroe and perhaps smaller divisions of the Iroquoian stock. Across the Niagara and to the north were the Huron. But the immediate neighbors of the Reed Fort site, if not indeed their progenitors, seem to have come from the region to the southwest. Perhaps the people of Burning Spring Fort in Cattaraugus county were their ancestors. Certainly the pottery and pipes seem to point out this while the vase and bowl-shaped stone pipes are typical of the country west of the Genesee. Cylindrical pestles are found both on this site and at Burning Spring but not on later sites. Once the proto-Seneca may have used long pestles. Strangely significant too are the bone draw shaves. They are Ohioan, as we have already

intimated, and typical of such sites as the Baum and Gartner sites (Mills). The decorated pottery disk is also Ohioan. The barbless fish hooks may be also for they are quite identical in point of form and method of manufacture. These things, therefore, fall in classification 3. Here we find the first specimens of bone combs. Only a few other specimens like them have ever been found, and these in Onondaga, Montgomery and Jefferson counties, in early sites. Unlike them, however, the Reed Fort site combs have effigies on the top. These combs are the prototypes of the numerous bone combs found in the Seneca sites of the middle historic period, and have numerous teeth made by sawing.



Fig. 30 Pottery disk from Richmond Mills

The clay pipes show some experimentation in form and decoration, in this respect being like those from Burning Spring, but other forms are transmitted constantly and without change up to the time the Seneca gave up their home-made pipes. The fixed type pipes are the square-topped "Huronian" pipe, the trumpet pipe, an early form of the ringed bowl, and the human face effigy.

Conclusion

Our belief regarding the site is that it represents one of the villages of the early Seneca before the opening of the colonial period. It was occupied for many (perhaps fifty) years and then abandoned, like all other sites of like character, that a new and cleaner site with more wood and game might be had. Its inhabitants were hunters and fishermen, traders and tillers of the soil. They were in communication with the people along the Genesee, down the Allegheny and westward along the valleys of the Buffalo, Cattaraugus and Tonawanda creeks, though most of their journeys were probably to the south and westward. They were descended from the unspecialized Iroquoian peoples of the upper tributaries of the Allegheny and from the more stable Iroquois farther west and south. They were not without wars and for some time struggled with the dispossessed Algonkian peoples whom they pushed southward. They knew of their kinsmen to the east but the country between Canandaigua lake and Lake Oneida had not yet been conquered. When it was finally won the Mohawk came down from the north and the

Onondaga left their seats in the hilly country east of the foot of Lake Ontario. Thereafter the Iroquois began another period of integration that finally led to the formation of their famous confederacy. Up to this time the early Seneca had mingled more with the Erie and the Neutral nations, than with the Onondaga and Mohawk.

When the site was finally given up and was claimed as the abiding place of the departed spirits, the living people marched down the Honeoye to a new place. Their arts and crafts were perpetuated, though their pottery gradually lost its collar and the notches at the bottom of the collar became the notched rim of the pot. Gradually the goods of the strangers from across the sunrise sea began to creep in and as the village moved on again and again the original town was forgotten to all save the keepers of the traditions.

A MIDCOLONIAL SENECA SITE IN ERIE COUNTY

By M. RAYMOND HARRINGTON

The possibilities of western New York as a field for archeological research have long been known, so many years that it seems remarkable that the region has not been entirely exhausted. But notwithstanding the more or less systematic labors of many investigators there are still a number of interesting sites to be found in the general vicinity of Buffalo that will repay the efforts of the careful archeologist. This is well illustrated by the results obtained from the exploration, in the summer of 1903, of an ancient fort and burial site about 2½ miles up Cattaraugus creek from Lake Erie and about 30 miles southwesterly from Buffalo, on the Cattaraugus Indian reservation. The investigation was carried on by Arthur C. Parker and myself, under the direction of Prof. F. W. Putnam for the Peabody Museum of Archeology and Ethnology of Harvard University. To Mr Parker is due the credit of furnishing the information which led to the selection of this particular locality for exploration, and it was his knowledge of the region that made possible the speedy discovery of a suitable site upon which to work.

We arrived at the Cattaraugus reservation early in May 1903, and immediately made inquiries and investigations. We visited a number of places where arrowheads and potsherds had been reported, but did not discover anything of importance until May 4th, when we came upon the vestiges of an old fortified Indian village or stronghold situated on a terrace overlooking the flood plain of Cattaraugus creek, about 1½ miles eastward from the little village of Irving.

Not much was to be seen of the fortification — merely a nearly obliterated curved bank of earth fencing off a projecting point of the terrace from the rest of the plateau. On a low knoll, forming part of the embankment, though perhaps natural, stands the house of the late Rev. Henry Silverheels, an Indian preacher of some note, now occupied by his daughter and half-breed son-in-law, John Kennedy, who works the land within and about the ancient inclosure. We named this earthwork the "Silverheels site" in honor of its former owner. One can fancy how the embankment must have looked before the plow had made such inroads, by comparison with the other similar ancient forts, farther up Cattaraugus creek, which are mainly in an excellent state of preservation. In these the wall is bordered on the outside by a ditch, the two having a combined height from the bottom of the latter to top of the former of about 5½ to 6 feet. Probably the same condition existed here.

A brief examination of the site and its surroundings was sufficient to show that the spot had been indeed well chosen. Here was a flat-topped point projecting into a swampy portion of the Cattaraugus flood plain — a point whose bold steep banks arising from the swamp to a height of 30 feet or more made it easy of defense on all sides but one, and that side had been effectually blocked against a possible enemy by the embankment and the palisade which doubtless surmounted it in ancient times. Several springs of clear cold water issue from the bluff within 8 feet of the top — another considerable advantage in time of siege. Not more than half a mile across the flood plain flows Cattaraugus creek, a stream whose shifting course may have been much closer to the fort in former years. This doubtless furnished the tribesmen with abundant fish at the time of the great spring runs, when the stream is full of mullet and catfish from Lake Erie. Game must have been plentiful and corn could well have been raised both on the plateau outside the wall or on the higher levels of the flood plain below, beyond the strip of swamp. Here are also plentiful evidences of former occupation and everything seems to point to a contemporaneous habitation of the two sites. Perhaps the principal part of the village was situated on the flats, in which case the fort may have served merely as a retreat in times of war and freshet, and as a burial place. The map shown in plate 70 will give some idea of the general surroundings of the site, while plate 71 gives the details of the fort itself.

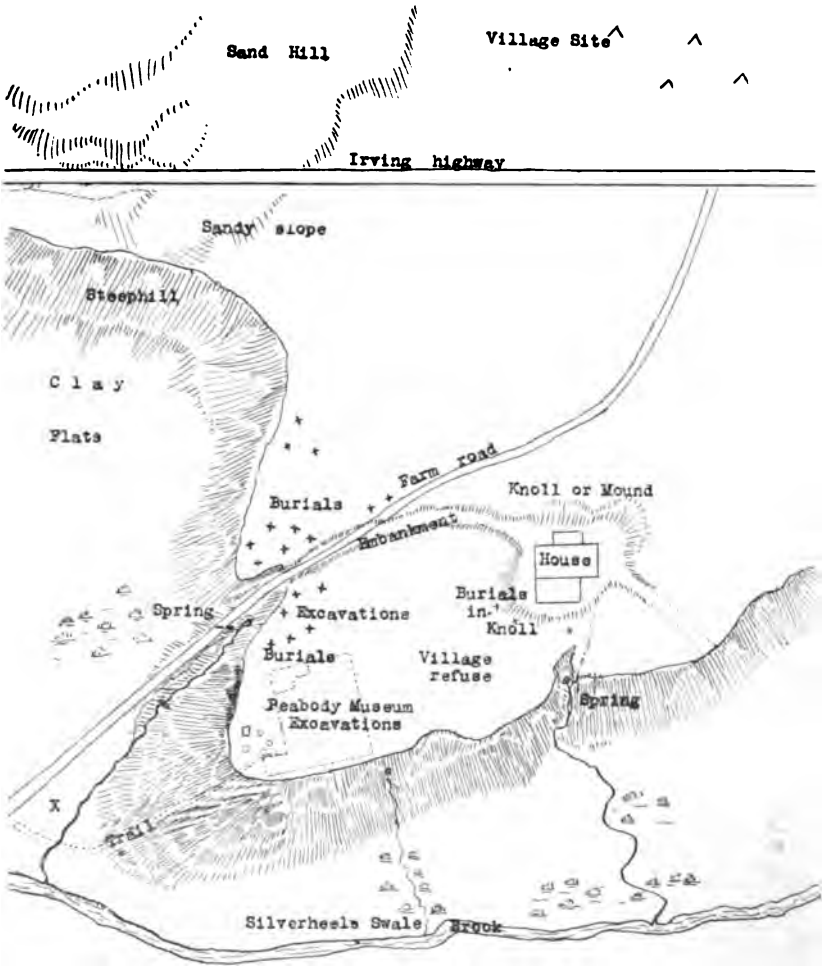
Upon the surface of the plowed ground within the inclosure were easily distinguished many signs of previous habitation: arrowheads, flint chippings and rejects, broken celts, bits of pottery and fire-cracked pebbles lay scattered here and there, while the naturally

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evious habitation; arrowheads,
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Plate 69

Plate 70



Sketch map of the Silverheels site, Cattaraugus reservation, near Irving, N. Y.



ugus reservation, near Irving

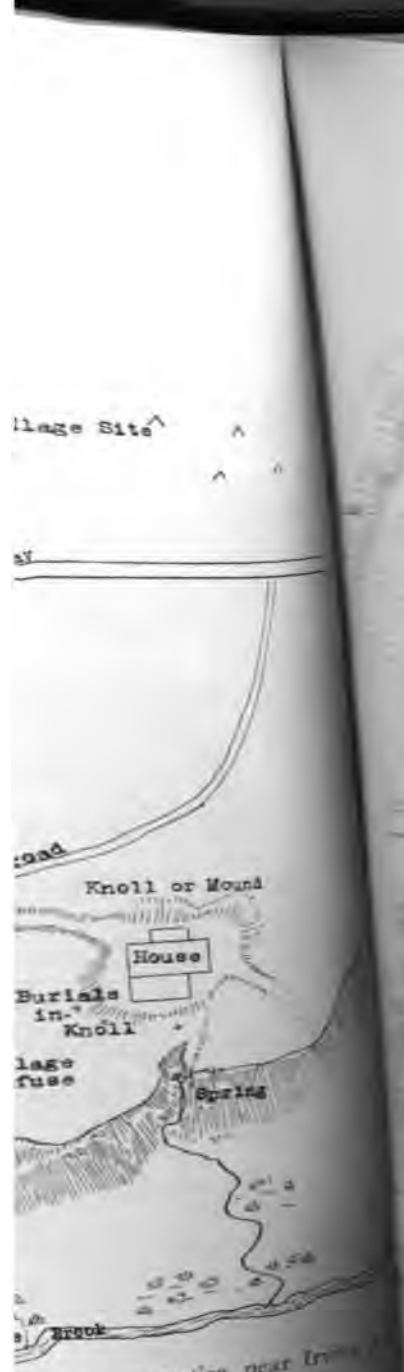


Sketch showing the trenches and graves found in the [illegible]

Plate 70



Sketch map of the Silverheels site, Cattaraugus

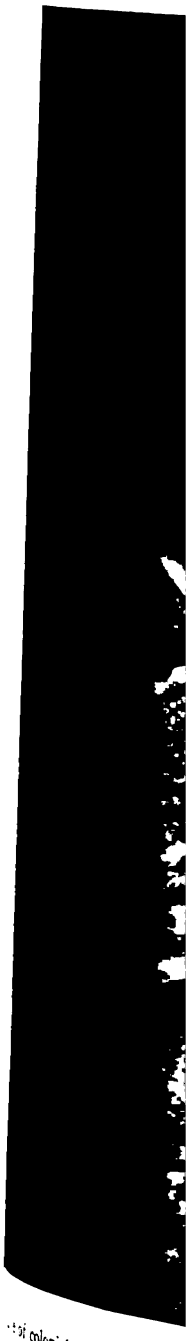


ttaraugus reservation, near

indications to mark the graves; our only guide was the stained earth and similar traces of disturbance above them. Fifty-one of the sixty-five graves yielded articles of utility and ornament that had been placed with the dead — anything from a single bead to pipes and pottery vessels. Most of the yellow soil was deeply stained with black by years of fires and accumulating refuse. We also heard from different Indians that Henry Silverheels, while digging a pit in which to winter his potatoes had unearthed human bones, and had found others later while grading a road from the terrace to the flats. On looking over Beauchamp's "Aboriginal Occupation of New York" we found the site listed and mapped, but not accurately.[1] It seemed probable from the accounts heard and from the surface indications that excavation would reveal much of interest, so we began work by digging a number of small test pits on "post holes" here and there with a view to determining the depth of the Indian layer and discovering the most promising portions of the site. The result showed that the Indian or stained layer averaged only 8 to 12 inches deep and that traces of deeper disturbances were most frequent out toward the point. Most of the Indian layer was badly plow-torn, but in the deeper portions undisturbed ash beds of considerable size were sometimes met with. A system of 8 foot trenches was then planned not to cover the entire inclosure, for time would not permit, but to run as indications proved favorable. We did not begin a trench series on the side of the area to be explored and run them in regular order because we did not know just where the best material lay and did not think it advisable with our limited help and time to waste labor on unproductive ground. So we drove one trial trench 8 feet wide in a westerly direction parallel to the edge of the bluff, as shown in plate 71, and another at right angles to it northward. Then we added parallel and adjacent trenches where it seemed most promising. The trenches were always dug a few inches deeper than the Indian layer. Thus, by examining the underlying yellow sand as the work went on we could at once detect the presence of a grave or other artificial disturbance by the stained appearance of this sand and the absence of stratification. These disturbances are classified as graves, ash pits, ash beds, post holes, and unexplained disturbances; and if sufficiently interesting, described and numbered in order as pits 1, 2, 3, and so on.

Out of the one hundred pits thus listed and described, sixty-five were burial pits or graves, and of these six contained more than one

[1] Beauchamp, W. M., "Aboriginal Occupation of New York," p. 65.



of colonial period S
clay pipe at top o

Plate 72



Grave of colonial period Seneca, Silverheels site. Note crushed pottery jar and owl effigy pipe at top of skull.

skeleton. None of the graves was more than 43 inches deep: the average was about 2 feet, 2 inches. Some skeletons were so near the surface that they had been disturbed by the plow, but these were usually of infants. There were no stones, mounds or other surface skeletons headed westward, but the graves were arranged in no definite order. We divided the burials into the following classes which will be taken up in order: (1) folded skeletons, (2) extended skeleton, (3) infant burial, (4) bone burial and (5) ossuary.

The typical folded adult skeleton (thirty-nine out of the seventy-three found were in this position) lay about 2 feet deep on the side, heading west, with knees more or less drawn up and arms flexed (plate 72). Generally the hands had been near the face, but these were seldom found, the bones having usually disintegrated. Even children were generally buried in the folded attitude. The position of the body had been easy and natural in most cases, although some had evidently been forcibly folded. One, in pit 37, even had the sole of the left foot against the right knee, a very strained position. This badly disintegrated skeleton lay at a depth of 27 inches, heading north; charred corn was scattered about, and near the breast lay a broken pottery vessel. Beneath the skeleton, and filling the whole bottom of the pit to a depth of 39 inches from the surface, was at least a bushel of charred corn, in two layers, beneath which a layer of charred wood, bark and grass was found. In all probability an old corn-cache pit had been later used for burial purposes.

A good type of folded skeleton, found in pit 24, is shown in figure 31, an adult male lying on the right side, headed west, at a depth of 28 inches. The left arm was bent, the right straight, the legs drawn up in a natural position, the jaw fallen. Lower bones, ribs and vertebrae were in bad condition. Not far from the face was a large deer-antler spearhead pointing west, against which lay a terra-cotta pipe in the form of a coiled serpent. Between the end of the outstretched right arm and the knee, where the hand had been, were found thirteen triangular flint arrowheads.

The skeleton in pit 85 (plate 73) will also illustrate the extended burial. An iron trade-axe or tomahawk of early form and a rude arrowhead lay near the forehead; near the face a terra cotta pipe and a rude stone knife showing traces of a handle, and not far away a pottery jar of graceful shape broken by roots. This skeleton also headed west.

Another burial of this sort, found in pit 43, without accompanying objects. It should be remembered that all these skeletons have

been carefully laid bare with trowel and brush so as not to disturb any of the bones before the photographs could be taken.

A problematical case was that of a folded skeleton in pit 66, lying in regular order at a depth of 36 inches. One of the femurs had been separated from the skeleton after burial and lay just



Fig. 31 Folded skeleton from the Silverheels site, Erie county. A serpent effigy pipe lies over a barbed conical spearhead near the face and thirteen arrowheads lie near the knees.

beneath an ash layer only 12 inches from the surface. Another strange feature was the finding of the charred remnant of a log of wood 4 or 5 inches in diameter lying beside the skeleton.

Only five skeletons in all were found extended, and of one, but a few crumbling fragments remained. They lay deeper than the

Plate 73

Extended burial in the Silverheels site, near Cattaraugus creek, Erie county. Extended burials in this site are rare. European influence is indicated by the iron hatchet.

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...made axe near the
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...The man had been
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...While the skull was
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...prominent raised rim
...right knee a pile of twe
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...verse parallel scratche
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Extended burial in the Silverheels site, near Cattaraugus creek, Erie county. Extended burials in this site are rare. European influence is indicated by the iron hatchet.

average folded skeleton and were all accompanied by objects of interest. One of these, found in pit 50 at a depth of 38 inches, had an iron trade axe near the skull and a pottery jar at the right hip. At the left side of the skull were the jaw-tips and front teeth of some large carnivora, probably once forming part of a wolf skin head-dress such as some of the early explorers describe. I found similar jaw-tips near an Indian skull at Port Washington (Long Island), in 1900. On the left arm lay a bone, which upon examination proved to be one of the mandibles of a large bird, perhaps a heron. The man had been about 5 feet 6 inches tall.

In pit 64 another extended skeleton (see plate 74), probably that of an adolescent female, was found at a depth of 28 inches, headed west. While the skull was in fair condition the other bones were nearly gone, but enough remained to show the height to have been about 5 feet 2 inches. Near the right hip stood a pottery vessel bearing a prominent raised rim ornamented with deep notches; and near the right knee a pile of twenty-three bone tubes 3 or 4 inches long and half an inch or more in diameter, some of which were decorated with transverse parallel scratches, together with a small iron trade knife. A brass bracelet encircled the left arm; a number of red and blue trade beads surrounded the neck. Here also were large beads rudely fashioned from the columella of Busycon (Fulgur) caricus or some similar marine shell. At each side of the skull, near where the ears had been, lay a group of three long red trade beads, probably once forming ear pendants. Red ocher in considerable quantity lay behind the skull.

Another extended skeleton of considerable interest was found in pit 68. This well-preserved skeleton, 5 feet 7 inches long, lay at a depth of 25 inches and, as usual, headed west. The bones of the right leg showed disease, possibly rheumatism as the distal end of the fibula was extended by rheumatic exostosis. Near the place where the right hand had lain were three triangular arrowheads, on the right elbow a deposit comprising the following articles: one iron knife, three bone implements (possibly flint flakers), seven worked flints (some perhaps rejects), three chipped flint points, one sheet brass arrow point (triangular), two flat oval stones showing much rubbing and scratching, a bit of purplish pigment, some copper beads and some bits of copper-stained bark. On the right wrist was a metallic bracelet, perhaps iron. The man had possibly been an arrow-maker.

The last extended skeleton also presented a number of interesting features. It was found in pit 78 at a depth of 40 inches, headed

west. The arms were doubled so that the hands touched the chin. The skull, beside being forced apart at the sutures by the weight of the superincumbent earth showed a gaping hole apparently made in ancient times, while beneath the sternum lay a triangular flint arrowhead, which by irritation had evidently caused a pathological condition of the bone above it. Besides a terra cotta pipe, two iron knives and two bits of paint lying near the right arm, a few fragments of a bag made of skin with the hair left on, probably preserved by copper salts, were found near the right shoulder. Some blue beads and fish teeth encountered here had evidently been in the bag. The neck was encircled by five long, red pipestone (catlinite) beads, two of which were decorated with notches. Along the lower leg were strips of skin, evidently part of the leggings, preserved by the copper beads sewn along their edges.

A certain type of infant burial, met with in a number of instances, was peculiar. The tiny fragments of bone were surrounded by or covered with a very distinct layer of charred bark and grass. Almost without exception trade beads or wampum, sometimes even tiny jars, were found with the remains. Sometimes the infants' graves were extremely shallow, in one instance (pit 96) being only 10 inches deep, but still containing decayed infant's bones, a few glass beads and a little pottery jar in good condition. In another case, that of pit 60, the parents had been especially lavish with their last gifts. Here the remains of the little skeleton lay at a depth of 21 inches, heading west. Near the skull was a small pottery jar in good condition, at the neck a double row of copper beads, together with Venetian and long red trade beads, perforated elk teeth, large shell beads and a quantity of wampum. Around one arm was a tubular brass bracelet and in the pot a number of conical copper ornaments or jinglers and two pieces of decayed wood. Both the copper beads and the wampum in some instances kept their position in short strings, the former being due to the preservation action of the copper salts on the fiber or sinew string, the latter to the lime from the shell of which the wampum was composed having cemented the beads together. Near the surface of the grave were distinct traces of fire.

A number of graves, both of infants and adults, exhibited near the surface a layer of ashes indicating that the custom of keeping a fire on the grave for some time after burial may have been practised here.

Three cases of "bone burial" were found on this site. As may be seen by the skeleton to the right in plate 75, found in pit 30, and



Plate 74



Extended burial of colonial contact period Seneca. Note the pottery jar and the bundle of bone tubes near the leg. Silverheels site.

by the one found in pit 95 shown in figure 16, the bones were practically all disjointed and placed without definite order, except that in both cases the skull lay at the west end of the heap. In some cases all the bones of an arm, say, would be in their relative positions, but the proximal end of the humerus might lie in contact with the sacrum, which in its turn might be entirely disconnected from the lumbar vertebrae. Judging from this disarticulation the snail shells found in some of the skulls and the absence of many of the smaller bones it seems probable that the bodies had lain exposed until much decayed, possibly in tree burials or scaffolds[1] or had previously been buried elsewhere — at least they must have been in a fragmentary condition when brought to this site for burial. A pipe and a flint scraper lay near the skull of the bone burial and a broken jar accompanied another burial.

Very similar to the bone burials in many respects, even to the snail shells within the skulls, and differing from them only in the number of skeletons contained, were the ossuaries, of which three were found, two small ones within the fort and a large one on the flood plain below. One of the former, found in pit 62, contained two adult and one child's skeleton, disarticulated as in bone burials, without accompanying objects, at a depth of 26½ inches. An interesting feature of this ossuary was the presence of a layer of more or less charred bark forming a stratum across the pit 6 or 8 inches above the skeletons, which had sunken in at the center as the dirt had settled down around the bones. Still another feature of interest was the intrusion of a later ash pit (61) into the side of the ossuary. This feature of an ash pit intruding on a grave was observed in a number of other instances and seems to show that these people did not in all cases even temporarily mark their graves or that a long time had elapsed between the two excavations. Traces of three superimposed excavations were observed in pit 30, which contained a bone burial in good condition as before mentioned, and also a very much decayed folded skeleton in regular order by its side, at the feet of which (in a unique position) stood a small jar. The pit ran down some distance below the skeletons and yielded, in this bottom portion, several chipped points and other objects. It looked as if the folded skeleton had been buried in a preexisting pit, then in after years the "bone burial" was interred. A small ash pit dug into the side of pit 30 may represent a fourth intrusive excavation.

[1] This was the Seneca custom within the memory of many of the Seneca over 90 years old. See Morgan.



Double grave, Silverheels site. 1 is a disintegrated flexed burial with a pottery vessel at the feet; 2 is a typical bundle burial. Note the ring bowled pipe.

The other ossuary within the fort was found in pit 79, and contained the disjointed skeletons of an adult and a child, and a folded child skeleton in order accompanied by much wampum and red trade beads.

On May 25th, John Kennedy, while harrowing a field adjoining the flood plains site, dragged up a few bits of charcoal and human bones, which he recognized as indicating something of interest beneath. The next day we made excavations at the place he pointed out and unearthed a circular ossuary about 6 feet in diameter and 2 feet deep, filled almost to the surface with a mass of intermixed human bones. No regular arrangement could be made out, but most of the long bones were rudely grouped in one part of the pit, the skulls in another and so on. The whole ossuary was not uncovered, merely the top and one side and only a part cleared out, still nine skulls, representing people from infancy to old age, were observed, including those removed and sent to the Museum. The bones near the surface were much decayed and badly broken, showing signs of fire; while a few bits of charcoal and scattered potsherds lay among them. The bones were so soft and so tangled that an attempt to excavate the entire deposit would merely have resulted in their destruction; and this fact, together with the expressed disapproval of the Indians, rendered such an attempt inadvisable. The bone deposit was probably surmounted in former years by a mound, the last of which may have been destroyed that very season by the spring plowing.

Ossuaries of this sort are said to have been commonly made by the Iroquoian people, who collected the bones of their dead at intervals and brought them in bundles to be deposited together in a mound.[1]

Before leaving the subject of burials some mention should be made of the physical condition of the skeletons a number of which exhibited abnormal features. The skeleton in pit 67 showed decided deformity of the spine and skull, that in pit 68 a diseased condition of the right fibula, while several vertebrae and other bones from different graves showed ankylosis. Injuries of the skull which had apparently taken place before death were observed on several occasions, especially in the case of the skeleton in pit 78, which moreover showed an arrow wound beneath the sternum. Decay of bones in general was very irregular, even in the same skeleton, a state of

[1] Morgan, League of the Iroquois, 1851, p. 173.

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affairs easily accounted for by the action of roots. Teeth as a rul
were quite sound but in the older individuals they were well wor
and often a few (mainly molars) were missing. The teeth of th
skeleton found in pit 93 were very abnormal.

Next to the burials in point of number and interest were the as
pits or fire holes. These consisted of more or less cup-shape
depressions in the ground running from 18 inches to 4 feet in dept
and 3 to 6 feet across, filled with stained earth, ashes and charco
often laid in strata of varying thickness, conforming as a rule t
the curve of the bottom. Quantities of fish bones, broken potter
and charred corn were taken from these pits, as well as a numbe
of split deer bones, fresh-water shells, bone awls and heads of th
same material, and arrow points, whole and broken, together wit
all sorts of flint chippings, rejects and general refuse. Occasional
objects like perfect pipes or jars were found but such finds wer
very rare in the pits. Some contained almost nothing of cons
quence, others much of interest, while a few were given ov
mainly to corn. Pits 27 and 28 were good examples of this clas
The former, about 27 inches in diameter and 20 inches deep, co
tained a large quantity of charred corn, evidently mature and shelle
surrounded by fragments of bark carbonized by fire. Beneath ar
around the corn and its bark sheathing lay gray ashes. A broke
metate-like stone, a muller, an arrowhead, a few fish bones ar
some potsherds were also secured. Pit 28, 20 inches deep, contain
in its center a quantity of ashes and burnt red earth surmounti
a mass of charred green corn on the cob, as shown in figure 2
The pit was lined with charred grass.

Another interesting pit was 42, from which a cross section w
drawn. A typical pit in every particular, it was bowl-shaped,
little more than 6 feet in diameter and attained the depth of
inches. Below the plow-torn layer the stratified structure at on
became evident, while at a depth of 20 inches was found an irregul
layer of reddish and yellow ash immediately overlaying a dense
black layer of charcoal, containing corn-cobs, corn, nuts, bits
squash stalks and a small piece of braided corn husk, all in a charr
condition. Below, stained earth with scattered black streal
extended down to the yellow sand in which the pit had been du
Near the charred layer were exhumed the few objects obtained
this pit; a few bone beads, three arrowheads, a broken terra cot
pipe stem, part of a metate-like stone, a bit of paint and some Un
shells. Another pit, 47, was of somewhat different structure.

contained the usual refuse such as fish bones, bird stones, chips, potsherds, broken implements, ashes and charcoal.

As mentioned before, a number of pits had been dug into earlier graves. Pit 40 was another case in point. This pit was originally a grave, and contained parts of an extended skeleton, but had been later disturbed by an ash pit, reaching nearly down to the bones and containing hundreds of charred acorns.

What was the purpose of these pits, so numerous on Indian sites throughout the East? The answer seems to be quite simple. Although differing slightly with individual pits, as a rule they seem to have been dug for use as ovens, clam-bake style, and the presence of fire-cracked stones in many of them helps support that theory. Most of them have evidently been used a number of times at least, at varying intervals, as shown by the ash layers separated by accumulation of dirt broken down from the sides and miscellaneous rubbish, for which these pits doubtless served as handy repositories. Some had been filled up after being used but a short time, others had been made to do duty as graves — perhaps in the winter when the surrounding ground was frozen. Several showed indications of having been corn-caches or receptacles for storing corn, well known to have been used by Iroquoian peoples and frequently to be found on their village sites. The green corn pit 28 was explained to me by a Seneca who described the ancient receipt for the preparation of green corn. He described how the Indians used to build a fire in a pit dug for the purpose, withdrawing it when the earth was sufficiently heated. They then lined the hot pit with green grass and husks, put in their corn, covered it with grass and husks over which was placed a protecting layer of cold ashes, rebuilding the fire above it and thus roasting the corn to perfection. In the case of pit 28 the fire had evidently been left burning too long. Probably this "clam-bake" method was used for other foods as well; hence the numerous pits.

Less definite and harder to explain than the pits, yet, one might say, shading into them, were the irregular depressions and deposits classified as ash beds. These were scattered over the southern part of the inclosure and did not seem to have definite outline. Some were as much as 10 feet across, but seldom reached a depth of more than a few inches below the plow-torn layer. The name is self-explanatory; they were merely layers of ashes and stained earth with scattering animal bones and artifacts. In one case, however, we found part of a charred rush mat rolled on a stick, but this unfortunately fell to pieces.

Near graves we sometimes found narrow depressions filled with black dirt, charcoal and refuse penetrating some 18 inches into the yellow sand. We gave them the name "post holes" which seems to offer the best suggestion as to their probable origin and use. Perhaps the posts supported palisades or fences surrounding the graves, such as were seen by the early explorers among the Iroquois.[1]

During the course of our excavations we met with a number of unexplained disturbances which we traced downward, as usual, to the undisturbed yellow sand, sometimes more than 4 feet deep. But we found nothing — no chippings, no charcoal, no trace of man except the disturbed sand with its tell-tale black stains. I can conceive of no feasible explanation for these apparently useless expenditures of labor. One somewhat similar disturbance, however, on the northern side of the fort we laid to some excavation of more modern times.

The foods of the former inhabitants of this site, as indicated by the specimens found, must have been quite varied. Among animal foods fish predominated; almost every pit yielded from a few to large quantities of fish bones, among which the presence of the catfish could be detected by the numerous characteristic fin-spines, and of the sturgeon by a few scattered bony scales. The raccoon and the woodchuck were the best represented among the small mammals; larger mammals were scarce, but two bear teeth were found. Strange to say, deer bone, so abundant on many other sites, were here decidedly rare: all of the few found, however, were split for the marrow in the usual fashion and some showed partial burning. In one pit several bones of a large mammal were found, with a perfect arrow point close to one of them as if it had been embedded in the flesh. I did not attempt to identify the bird bones found. Crumbling Unio shells were not infrequent in the pits, and at least one deposit of more than a dozen helix shells was obtained, both indicating their probable use as food. Turtle bones were rare — a contrast to their abundance in the ancient shell-heaps of the New York seaboard.

Corn evidently held first place then, as now, among the foods of Iroquoian peoples, for it was very abundant in many pits, both in the form of charred grains or cobs and sometimes in very large quantities as described before. The cobs are quite short, but the kernels themselves seem as large as in modern corn. In pit 40 at

[1] Cf. Journals Sullivan's campaign.

the bottom of an intrusion penetrating the older grave were several quarts of charred acorns. A few charred beans and squash stalks alone remain to tell of the former use of these famous Indian staples. Fruits were barely represented by a few charred pits, thought to be of the wild cherry. Tobacco, or a substitute for it, was discovered in a charred state within the bowl of one of the terra cotta pipes.

The artifacts obtained within the inclosure show that its ancient occupants manufactured implements, utensils and ornaments of stone, clay, bone, antler and turtle shell. They possessed moreover brass of European origin from which implements and other objects were made and also shell objects obtained in trade. Skins of animals, furs and vegetable fiber were also used, and the use of wood may be inferred.

Chipped stone implements, although quite abundant, were remarkable for their paucity of forms. Nearly all were triangular blades, doubtless in the main arrowheads, without notches or stems and made of black or gray flint. The workmanship of course differed considerably, some points being rather rude, others exquisitely thin, symmetrically shaped and keen. A very few notched blades were obtained, probably knives. Another type of what must have been a cutting tool of some sort was found near a skeleton in pit 85. It was long and rectangular in shape and bore distinct traces of a wooden handle of some sort. A few beveled scrapers and a drill or two complete the list of chipped implements found within the inclosure. Rejects and unfinished implements were also obtained in fair quantity. Similar forms prevailed upon the flood plain site, an argument in favor of the theory that both places were occupied by the same people, probably at the same time. Strange to say, on the plateau just outside the embankment a few pieces of a different character were picked up, perhaps relics of an earlier habitation. These were large and notched forms unlike any found within the fort or upon the flood plain site.

A few celts, mostly rude or broken, were unearthed from the pits and general refuse of the fort, and picked up on the flood plain, but no grooved axes whatever; in fact I have never heard of their being found in the neighborhood. Water-worn cobbles, sometimes pitted and showing use as hammers, were common; there were also a number with shallow pits but no trace of battering. The finding of a broken metate like stone and a muller in pit 27 near a quantity of charred corn indicates their probable employment in corn preparation. Several such metates and mullers were found. Net sinkers made by notching the opposite edges of flat pebbles were plentiful

on the flood plain but only occasional in the fort — a fact easily accounted for by the closer proximity of the former to the fishing grounds along Cattaraugus creek. There were also several worn and polished "slick stones," possibly potter's tools, and a few other implements of a rude and undeterminate nature.

The highest example of stone art secured was the realistically carved owl pipe near the back of the head of a folded skeleton in pit 29. In the grave were also a broken pottery vessel, some wampum, a piece of flint, some greenish clayey stone, possibly paint, and an iron trade knife, the sheath of which had evidently been decorated with wampum, for part of a curved design composed of three shell beads could be made out when the iron was raised. The pipe itself had been very carefully carved from limestone and is in every way a splendid example of Indian art. It was evidently intended for use with a wooden stem, which had entered just above the tail of the owl, thus causing it to face away from the smoker. The feet are extended forward to give a good finger hold and the head raised above the rim of the bowl.

A number of red catlinite or slate beads, also excellent pieces of workmanship, were found in different graves. They were an inch or more in length, slender, and more or less cylindrical, although sometimes having a squarish section. This latter type was decorated with notches along their full length. The source of the catlinite once in common use among Iroquoian peoples is a question I have not been able to work out but it must have been brought in from western tribes by trade or conquest.

The only representative of the gorget class of ornaments was a small flat oval stone amulet scalloped along its edge, drilled near one end and bearing on each side a rude incised human figure. Later a perforated pendant effigy was found by Mr Kennedy (see figure 32).



Fig. 32 Effigy found with tortoise rattle

Paint was represented by red pigment found in a number of graves, sometimes in considerable quantity, and by a few pieces of purplish and greenish soft stone.

Articles made of bone and antler were not very numerous nor were they in great variety. Awls of bone were occasionally met with, some merely sharpened splinters, others more elaborately finished, one being even decorated at the blunt end with a design

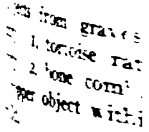
composed of short incised lines. But one bone needle was found — a broken one. The purpose of the twenty-three bone tubes 3 or 4 inches long found with an iron knife piled up near the right knee of the skeleton in pit 64, before described, remains a matter for speculation, nor does the occurrence of parallel transverse notches on the sides of some of them seem to give any clue. It was suggested by one of our Seneca visitors that these tubes may have been medicine receptacles. Eight similar ones were found in a pottery vessel near the face of the skeleton in pit 97. Smaller tubes suitable for beads were found in a number of pits, and were probably used as such. The bony part of a turtle shell containing large beads and small pebbles found in front of a folded skeleton in pit 58 indicates that the ancient use of a turtle shell rattle was similar to the Gánōwa gŭstahewēsĕn of the modern Seneca. (Plate 76 shows a similar rattle.)



The most interesting of the bone objects found was a small human figure very neatly carved, but with no trace of arms and with the feet missing. It was discovered in pit 33 at the depth of about 18 inches from the surface in a layer of charred bark, where it was associated with small copper beads covered with verdigris and still adhering in strings, scattered glass trade beads, and infants' bones — a typical infant grave. When this figure was shown to the Seneca they informed us that the "ga-ya'-da" or image was a very powerful "witch" charm, and that similar ones had been often used by their men of magic. They even told stories of finding such an image amid the belongings of a deceased mystic, done up in a large ball of cloths and skins, the inner of which was soaked with blood. Personally, I think that if the image had been so highly thought of in ancient times it would never have been buried with an infant, and that it probably was merely a toy — a doll for the child to play with in Spirit Land.[1]



Some mystic purpose, however, may have prompted the placing of several raccoon penis bones with an infant in pit 49, as such objects are still to be found in "mysterious packages" among Iroquoian peoples today.



A few perforated elk teeth found in another child's grave (pit 60) hitherto described, were of the sort highly prized as decorations by the modern western Indians, and were here doubtless used for the same purpose.

A fine specimen of antler implement was the spear or harpoon head discovered with the skeleton in pit 24, hitherto described and

[1] Similar effigies were found at Factory Hollow, Ontario county.

Plate 76









Objects from graves in the Silverheels site near Irving, Chautauqua county. 1, tortoise rattle such as is used by the Seneca Wenontonwisas society. 2, bone comb. 3, fragment of gourd preserved by contact with the copper object within it. 4, small brass kettle found in the grave of a child.

figured. Made much after the fashion of the more familiar antler arrowhead by cutting off the end of an antler, sharpening the point, and drilling out the butt to receive the shaft, it was much larger (4 or 5 inches long), was transversely perforated probably for the attachment of a harpoon line, and showed a backward and outward projection of the rim of the shaft socket, doubtless intended for a barb. But one other variety of antler implement was obtained, a sort of elongated cylinder, probably a flint flaker, unearthed from pit 67. In this pit[1] at a depth of 22½ inches lay a folded skeleton heading west and facing south. The spine showed distinct indications of disease, and certain other bones seemed abnormal. Between the head and knees lay a deposit of objects among which figured the antler cylinder, stained green and well preserved by copper salts from a sheet of that metal just above it. Here were also an oval flat stone showing wear, an iron trade knife, and a small flint point, while near the neck of the skeleton a few trade beads came to light. A few other similar bone or antler cylinders in poor condition were discovered with the skeleton in pit 68, before described. It will be noticed that the skeletons of both pits 67 and 68 had what might be called arrow-making outfits, the only ones found, and were both cripples. Perhaps among these people arrow-making devolved upon those who could not hunt.

Wampum beads were quite common — by far the most abundant of shell objects found. We found them, with few exceptions, only about the necks of women and children. The beads were regulation wampum size, cylindrical, and mainly white, in many cases showing the spiral laminae of the shell columella from which they had been made. Another variety of somewhat similar shell beads was a little larger and more disc shaped. Quite a number of large coarse beads made from the columellae of Busycon (Fulgur) caricus or similar marine shells occurred, often heavily coated with a brownish patina. Large shell discs were rare, but one or two in an advanced stage of disintegration being found.

It was very difficult to make sure of the native copper among the quantity of mostly brass articles found, but there were some beads at least made from this material.[2] The copper had been hammered out into rough sheets and then bent around into a cylindrical form,

[1] An intrusive ash pit containing, among other things, a large chipped point, had been dug into this grave.

[2] Later examination proved that there was no native copper implement found here. A. C. P.

making a large rude bead. Seven such beads forming a bracelet about the right arm of the skeleton in pit 75, and four apparently similar ones together with an equal number of copper or brass "jingers" or conical ornaments made in the same way, were found with the bones of an infant in pit 89.

The salts of this and other copper had caused the preservation in many instances of organic substance, such as the strings of vegetable fiber and sinew upon which the beads had been strung and bits of skin and fur that had lain adjacent to the metal. In the case of the skeleton from pit 78, described before, parts of a fur bag and strips of buckskin legging had been preserved by contact with what seemed to be copper beads. The strips of legging lay along the lower leg bones, the beads being sewn along the outer edge and terminated near the foot in lobes or flaps around which the line of beads continued.

The best discoveries of the expedition were in the line of pottery, of which a collection was obtained comprising a variety and quantity of perfect or nearly perfect specimens seldom met with in the east. In size the vessels varied from a tiny jar but 2 inches high (see figure 33) to one holding 4 quarts; in shape, from a mere cup to an ornate and elaborately modeled jar; and in texture from rude, coarse and crumbly ware to the thinnest and hardest of which the eastern Indian was capable. Most of the vessels may be grouped into the following typical classes; raised-rim jars, knobbed-rim jars and cups. The first type is of the characteristic Iroquoian shape, with rounded bottoms, constricted necks and raised rims of differing widths and often decorated with combinations of notches and incised lines. Not infrequently the rim has been modeled up into from one to four peaks rising with graceful curves and adding much to the beauty of the vessel. Below each peak the incised design is often more elaborate and in a few instances a rudimentary handle or ear had been added, reaching from the rim proper down across the constriction. One jar of the raised-rim class, found in pit 88, is



Fig. 33 Small pottery bowl from the Silverheels site, Erie county.

covered from its almost flat bottom to the edge of the rim with incised patterns; in others the neck or constricted part is very long and so on through many variations. The knobbed-rim jars were in most respects similar to those of the preceding class, but the rims, instead of being incised or raised in peaks, are in the form of a regular cog of lateral knobs or points, sometimes merely deeply indenting the lower edge of the rim, sometimes covering all of it with large and prominent knobs. Cups were rare, the few found being merely small flaring vessels without constriction and almost without ornament.



Fig. 34 Pottery vessel from the Silverheels site. This specimen more closely approached the Mohawk valley Iroquoian type than any other found in the burials. x⅔.

Most of the jars were intended, without doubt, for cooking purposes and were used on the fire as is shown by the smoked condition of many of them and the finding of a cracked pottery jar in pit 35, with charred grease or soot in the crack. The mending of pottery

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is shown by holes in several potsherds which had evidently been drilled along both edges of a break for the purpose of lacing it together, thus preserving the integrity of the vessel, a common practice among the ancient Indians of the New York sea coast, but rarer in the Iroquian region. Some of the jars associated with infant skeletons were so very small that it is improbable that they were used as anything but toys. One of the cups found was partly filled with red paint — a circumstance which may give a hint as to the use of the others. Sometimes two or even three vessels occurred in one grave, as in pit 92 where three jars in a row were found with



Fig. 35 Typical Iroquoian vessel from the Silverheels site. Period 1640-87. x⅔.

the remains of two infants, or in pit 82, where a large jar and a small one lay at either side of a little bone dust, once an infant's skeleton.

Pottery vessels and indeed almost all the objects of utility, when buried with a body, were placed, as a rule, at the right side, if it were laid out straight and in front, near the head, if it were folded,

Besides the numerous vessels that were found in good condition there were many that had been crushed by roots or the weight of the impending earth. Moreover great quantities of potsherds were collected from the various pits and a few picked up on the surface of the fort and on the flood plain site.

Four varieties of pottery (terra cotta) pipes were obtained here. The commonest, found only in the graves, are so nearly alike it would be nearly impossible to tell one from the other. They are

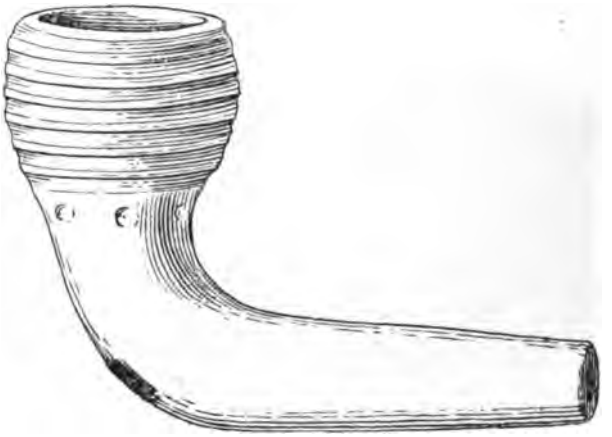


Fig. 36 Typical ring bowled pipe of terra cotta from colonial period, Neutral, Seneca and Onondaga sites

composed of a rounded bowl, decorated with parallel and horizontal stripes, from which arises a much narrower stem, which, rounding a gentle curve tapers slightly and ends within a few inches (see figure 36). A variant of this type had the decoration in the form of short oblique stripes instead of horizontal ones encircling the bowl. Two other pipes of somewhat different form were found—one in an ash pit, one in the general digging. A pipe of much interest was found in pit 24, before described, having the form of a coiled serpent, the head of which was raised above the rim of the bowl (compare figure 37). A still more complicated effigy pipe, by far the best of the terra cotta ones found, was unearthed from pit 98, associated with an iron knife and one or two very badly decayed bits of human bone. The whole decoration of the pipe represents a seated human figure facing the smoker, with hands at the mouth, a large head topped with a peculiar headdress or possibly a knot of hair, and showing eyes, nose and mouth. The knees were raised

and the feet protracted into long notched ridges along the stem, while the spine and upper arm were dotted. The face looked something like the modern Seneca ceremonial wooden masks or "ga-gó-sa," so much that the Indians considered the pipe a representation of a masker blowing ashes between his fingers as do the "False-face Society" men of today. A quantity of charred material, perhaps Indian tobacco, was found in the pipe (see figure 23).



Fig. 37 Serpent effigy pipe from Silverheels site. Buffalo Society of Natural Sciences collection. x about⅞.

Taking up the articles of European origin collected on this site, we find beads of very common occurrence. These are of four sorts: small round white and blue glass beads quite similar to those used by the Indians today, larger multicolored spherical beads and long cylindrical ones, generally a dull red and a close imitation of the original catlinite article, but sometimes blue. Sometimes it was possible to trace in the sand small parts of beadwork designs, which, were usually in curved lines.

There were also small beads that had some appearance — verdigris and the like — of being made of copper. Upon closer examination they appeared to be of glass, in the manufacture of which some salt of copper had been used as a pigment. They preserved, however, the sinew or fiber cord on which they had been strung and any organic substance with which they came in contact.

A number of pieces of sheet brass were procured in different graves, some of which at least had served a definite purpose, perhaps as ornaments. In pit 67 were found several pieces, probably parts of a large sheet, one of which was triangular, notched along

the edge and bore traces of red paint. One triangular arrowhead, cut from sheet brass, was secured, of the same general sort that was found with the famous "Skeleton in Armor" near Fall River and in different parts of New York State from the rock-shelters near New York City to the Iroquoian sites in central and western New York.[1] Beads and jinglers of European brass were not infrequent; the Indians had evidently cut small pieces from the sheet metal and bent them into their present cylindrical and conical forms. Another metallic ornament, of which several examples were found, is a bracelet of slender or brass tubing bent in the form of a very long and narrow loop thus giving it breadth. A short-handled metallic ladle was also obtained.

Two iron tomahawks were unearthed from graves, both of the same early type shown by Beauchamp as figure 99 in his paper, the "Metallic Implements of the New York Indians;" and sharp-pointed iron trade knives were not uncommon. A rude bracelet and two or three awls complete the list of iron objects obtained here. No guns, metallic kettles or articles of silver were found. Judging from the specimens obtained and from the circumstances of their finding, we had here a people gaining their livelihood mainly from fishing, agriculture and the chase; building forts of earth doubtless topped with palisades for their protection; and quite well advanced in the simple arts. Trade with Europeans had brought them numerous trinkets and had made their lives easier by the addition of iron axes and knives to their native implements; but had not yet brought the guns and metallic kettles so common later. Ornaments such as beads and ear pendants were worn almost entirely by women and children, the men seldom allowing themselves even a bracelet. Trade with other tribes is shown by objects made of marine shells and red catlinite. The dead were buried by simple inhumation, in which case implements, utensils and ornaments were often placed in the grave, or by the ossuary and "bone burial" system before described.

Everything seems to indicate that these people were of Iroquoian culture. The characteristic pottery and terra cotta pipes, the use of triangular points and celts instead of notched points and grooved axes, the abundant use of corn, the wampum found, the ossuary system and even the practice of fort building all point to similar customs with the Iroquois. While many of these features may

[1] Beauchamp, W. M., "Metallic Implements of the New York Indians," p. 47–50. State Mus. Bul. 55. 1902.

have been found also among other peoples, their combination here seems practically conclusive proof. But what Iroquoian tribe is this? There are two answers possible: they were either the Erie or Cat Nation, an extinct tribe known to have been of Iroquoian stock, or they were Seneca. Beauchamp, in his "Aboriginal Occupation of New York," places the Erie in the region southwest of Buffalo, and has done so on good authority, as will be seen from an account of this subject prepared by Mr Dilworth M. Silver of Buffalo, who has given it much attention. The Erie, however, were destroyed by the Seneca in or about 1655, according to the Jesuit Relations and Charlevoix's "History of New France." Thus the question narrows down to whether or not the site was occupied prior to that date. If it was, the inhabitants were Erie; if not, they were Seneca. The later is probably correct. The European articles found were of a sort similar to those traded to the Indians up to the first quarter of the eighteenth century. Champlain saw iron trade axes among the Iroquois as early as 1609 and it is well known that beads, knives and the like followed soon after. There may have been, however, more or less occupation of the Cattaraugus valley before their arrival. I could find no trace of any tradition concerning the fort or its former occupants among the Seneca and most of them were even ignorant of its existence. The probabilities are, then, that the site was occupied by the Seneca after 1655.

The region is still a rich one for the archeologist. There are still a number of earthworks practically untouched. One of these, situated on the bluffs south of Cattaraugus creek amid dense timber, still retains its wall, ditch and gates in good condition, and moreover shows a lower second wall within the first.[1]

DOUBLE WALL FORT

EXPLORATION OF AN ANCIENT EARTHWORK IN CATTARAUGUS COUNTY, N. Y.

By M. RAYMOND HARRINGTON

The highly interesting results obtained in 1903 for the Peabody Museum from the ancient Iroquoian stronghold and burial place known as "Silverheels Site" led to a further examination in 1904 of the same region, the valley of Cattaraugus creek, which enters Lake Erie, about 30 miles southwest of Buffalo, N. Y. In this work the writer was assisted by Mr A. B. Skinner of New York

[1] This site was afterward excavated and is reported under the title "Double Wall Fort."

a long, very narrow "hog back," a tongue of land which forms a continuation of the point itself and slopes gradually down from the flat above to the creek bank just above the mouth of the brook. A narrow path may still be seen along the crest of the "hog back," with steep declivities on either side; handy for getting down to the water and at the same time easy of defense.

Before taking up a description of the earthwork let us glance at the conditions which made the site a suitable one for a stronghold or a place of habitation. Its commanding position with views of both Cattaraugus and Clear creeks and the broad expanse of valley, the steepness of the banks and its consequent inaccessibility, the ease with which the narrow neck could be fortified and the point thus shut off from the rest of the plateau, the good spring on the side hill inside the wall and within 10 feet of the top, all recommend the place from a military standpoint. It was, moreover, a place where all the necessaries of life were within easy reach: the above-mentioned spring, the creek with its teeming fish, the good corn lands close by, everything was favorable. Perhaps the field, now washed away, at the base of the bluff was used as a corn field, or perhaps the level tract of the plateau, or of the the flood plain across the creek. It does not seem strange that the ancient fort-builders chose this location.

The archeological environment should also be looked into before taking up the details. The Silverheels stronghold, the scene of the 1903 exploration, lies about 3¼ miles down the creek and on the opposite side on a point of the terrace where the flood plain is considerably narrower. On the same side as the Double Wall Fort but only 1¼ miles below, at the mouth of Big Indian creek, is another similar work, the Burning Spring Fort, which is much older than the Silverheels site. Many arrow points, flakes and the like have been found by the Indians on the now destroyed field at the foot of the bluff at Double Wall Fort, which may point to the previous existence of a camp or even a village there instead of a corn field. Up stream from Double Wall, the first site of which I have definite knowledge is the now obliterated semicircular work on Point Peter above Gowanda and fully 8 miles distant. Across the creek, however, there are several sites within a radius of a mile or so. Immediately across is a low alluvial terrace, part of the flood plain, which shows slight evidences of occupation in the shape of occasional chips, points, net sinkers and potsherds with a few fire-cracked stones scattered over several acres. There are other sites of this

kind on the flats, notably back of the Thomas Indian School, but most of the other traces of occupation are Seneca and more modern, or in at least one case, modern Delaware.

The earthwork of the Double Wall Fort consists of a well-preserved curved wall and ditch crossing the neck of land between the point and the main part of the terrace; and a second and lower wall with a shallower ditch parallel to and inside the larger one. The outside wall has two gates, the inner one none, but instead a gap between its southern end and the brink of the ravine. The walls are concave outward, with ditches in both cases outside. From the bottom of the ditch the top of the highest wall is at one place 5 feet, 7 inches, but this is variable. The ditch itself is 2 feet, 10 inches deep; the wall 15 feet thick and about 215 feet long. The height of the inner wall is 2 feet, 7 inches, its width 11 feet. The two walls are 27 feet apart from crest to crest. A glance at the drawings will show their shape and construction. It is certainly startling to come across the great wall and ditch stretching away into the tangled second growth chestnut, briers and underbrush which cover the site. The photographs give some idea of the effect.

The ancient village stood upon the point proper, cut off from the rest of the terrace by the embankments and the palisades which doubtless once surmounted them. The other sides were protected by their steepness and also perhaps by palisades set along the edges of the bluff. If these were ever used, however, there is now no sign of them. In fact I found no traces whatever of the palisades themselves even in cross sections made of the larger wall. This may be accounted for by the gravelly character of the soil which is favorable neither for the preservation of the actual wood of the palisade nor for retaining any trace of the post hole. There is no doubt that such palisades were generally used; for not only do the writings of the early explorers tell of many instances among the Iroquoian tribes; but decayed or charred portions of them have been actually found *in situ* on other sites similar to this.[1] The pickets must have been planted in this case along the top of the wall, perhaps in a single row. It does not seem possible that any other arrangement could have been effective here. It is difficult to see how the gates were made secure unless perhaps the southern one is recent and was made by the modern Seneca for convenience in

[1] Beauchamp, Aboriginal Occupation of New York, p. 27.

hauling timber across the wall and ditch. In that case the northern gate — the only one — would have been well protected by the inner wall, forming an alley between the two walls from the outer gate to the village and giving a greater chance to stop enemies who had succeeded in forcing their way through the gate. If this is not true it would be difficult to account for the inner wall at all, unless as a relic of a still earlier occupation which seems hardly likely. It may be possible, however, that the inner wall was started and never finished. A reasonable explanation for the southern gate, supposing it to be ancient, is that it was made for convenience at a time when war did not seem imminent, to save the trouble of going around through the alley when entering or leaving the fort.

Turning now to the evidences of habitation within the work we find them visible even from the surfaces amid the tangled second growth stumps, briers and underbrush. The most noticeable of all were numerous saucer-shaped depressions in the surface of the ground, much scattered but mainly on the side of the site nearest the ravine: these continued out to within 30 feet of the apex, and averaged 4 or 5 feet in diameter. Another evidence was the presence of very black earth, beginning some distance inside the wall and covering the entire surface of the point nearly out to the apex but apparently thickest on the ravine side. In this black earth on the paths and other bare spots could be seen occasional fire-broken stones and scattered potsherds, which are also washed out now and then along the edge. No other surface indications were visible except of course the earthwork itself.

I decided that a few transverse trenches and thorough "post holing" would give a good general idea of the character of the site, and began work on this basis. Three trenches were dug, but the excavation was made unpleasant and difficult by the interlacing mass of tough roots, the thick vegetation, and especially by the almost constant rain. The trenches were run 8 feet wide and always included all earth that showed any trace of disturbance. Occasional "pits" or cup-shaped holes filled with disturbed and stained earth were encountered, some with a corresponding depression above them, some without. They were generally homogeneous in structure although some showed irregular ash or charcoal layers. On the whole the pits found here contained less in the way of artifacts and refuse than any other series I ever examined. As a rule they were merely black stains — nothing more. We dug into



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one saucerlike depression after another with practically the same result, merely a dark stain running down perhaps 2 feet, a few particles of charcoal, a chip or two, a reject perchance, or perhaps a small potsherd — such were the contents of the average pit.

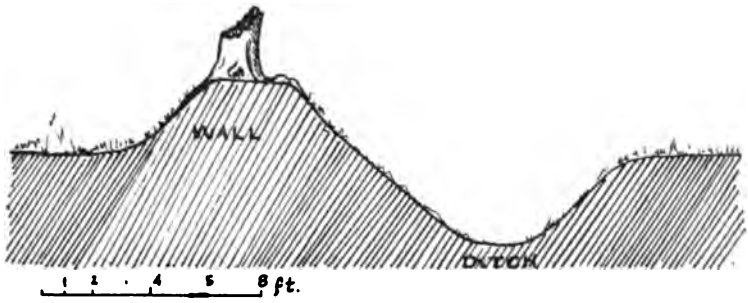


Fig. 38 Cross section of the wall and ditch at Double Wall



Fig. 39 Cross section of typical refuse pit at Double Wall

Red or black ash layers were of the commonest occurrence here, generally about 3 or 4 feet in diameter and 12 to 16 inches deep. They rarely contained anything of interest, but were remarkable on account of their number, especially the red ones, which were sometimes within a foot or two of each other, or even coalesced. The black or Indian surface layer seldom reached a depth of over 8 inches and was thickest on the ravine side. Specimens from the site were not abundant, nor had they much individual character. Typical Iroquoian celts, pottery and triangular arrowheads told the story, however. The pottery was much like that found at the Silverheels site, only ruder, having much the same style of raised rim. Still the "knobbed-rim" pottery, so characteristic of the Silverheels stronghold, did not appear here. The only pipe found was a plain terra cotta affair with no salient characters by which it might be

identified as belonging to any particular culture. It merely belonged to the general Algonkin-Iroquois type of terra cotta pipes. Pitted hammerstones were rather common, as were chips and objects of flint. As before indicated, a number of flint arrow points were found, mainly triangular. There were also celts, whole and broken, and a peculiar stone chisel. A few charred nuts were found in one pit, but bones of any kind were very rare, although a few, evidently deer, came to light. This scarcity seems very peculiar when we consider the large number of hearths and pits, unless most of the refuse was thrown down the bluff — a custom which seems to have prevailed among the Mohawk branch of the Iroquoian stock, if we may judge from the conditions to be seen on the sites of their old strongholds in the Mohawk valley. But if this was done at Double Wall Fort, we did not find the refuse heap. Perhaps it was washed away or covered by a landslide. Nothing to indicate European influence or contact was discovered. A large proportion of the specimens were found in the surface or village layer and comparatively few in the pits, reversing the usual conditions. Certain spots in this layer seemed richer than others, particularly on the side toward the ravine.

The small amount of refuse gives the impression that the village was neither very populous nor long occupied. We just consider, of course, that the inhabitants may have practised the Mohawk system above referred to of disposing of it, but the probabilities are that the site was used mainly as a war-time stronghold and probably never for any considerable period as a regular village. Perhaps the main town was on the now destroyed field at the foot of the bluff, or even across the creek. The fort could not, it seems to me, have been merely a temporary fortified camp or village intended to be used a short time only and then abandoned forever. Too much labor had been expended on it for that, and the Indian rarely likes trouble for nothing. The "war-time stronghold" hypothesis certainly seems the most probable.

That the people who erected this work belonged to the long extinct Erie or Cat Nation, a branch of the great Iroquoian stock, seems to me unquestionable. They were the only people of whom we have any record in the region during early historic times[1] when the Jesuits first came among the Iroquois, and doubtless had lived there for some time. The site is early, for there are no trade articles: it

[1] Jesuit Relations for 1668.

is Iroquoian, for it yielded the combination peculiar to that culture — celt-axes, triangular arrow points and pottery showing the typical constructed neck, rounded bottom and projecting rim. It is not Seneca, for this people did not enter and settle the region until long after the beginning of trade with the whites, relics of which would certainly be found in abundance on any site occupied by them. Here we have but one conclusion open — that the site is of Erie origin. It would be very interesting, however, to make a further study of these Erie sites, and compare them with those of the early Seneca in the Genesee valley. Then, and then only, could any absolute conclusion be reached.

THE RIPLEY ERIE SITE[1]

BY ARTHUR C. PARKER[2]

General Region

Along the southern shore of Lake Erie between Westfield and State Line, and extending east and west from these points, is a high bluff of Chemung shale rising almost sheer from the water. In various places it is from 15 to 65 feet above the lake level. It forms a most effectual barrier to those who might wish to reach the land from the water or the water from the land. The soil above the shale in general is a loose water-washed sand and gravel beneath which is a substratum of Erie clay which outcrops at denuded places. In this lake border region are numerous springs and brooks. Two miles back from the lake rise the steep Chautauqua hills which form the watershed that sends the streams on the south into the Allegheny and its tributaries and finally into the Gulf of Mexico and those on the north into Lake Erie and finally into the Gulf of St Lawrence. This region by reason of its physical features afforded an ideal retreat for the tribes of men who found their way there after the subsidence of the great glacial lakes, which receding left their shore lines far inland as terraces and hills and their beds as fertile undulating plains.

Traces of early occupancy are found here. On the sites of ancient marshes are found the bones of the mastodon and near them fire-cracked stones and charcoal. There are sites which yield

[1] Condensed from N. Y. State Mus. Bul. 117.

[2] In excavating this site we employed Everett R. Burmaster as field assistant and as other assistants William Blueskye and Jesse Mulkin, all of Irving, N. Y.

the monitor pipe, others that yield the polished slates called banner stones, gorgets, and bird stones and the notched flints far different from the flints shaped by later comers. That the people who made these things were of the Indian race is evident, but of what tribe or stock is a question we must yet determine. At a later period a new stock of people invaded the region but whether they found it inhabited or whether there was a struggle in which the old race was expelled is merely a matter of conjecture now. Evidences of the wide distribution of these older people seem to preclude the theory of their utter extermination and it seems more probable that they became absorbed by their conquerors or became expelled to regions where their environment changed their culture.

The later invaders who displaced the builders of the mounds and makers of polished slate implements seem to have been some early branch of the Huron-Iroquois family. Their territory is characterized by the earth walls and inclosures which they left and by the pottery and triangular arrow points which are never found on earlier sites untouched by other occupations. The early Iroquoian sites are still further differentiated by the ossuaries which are found upon many of them. Later this territory came into the possession of a people whom we recognize as the Erie, a branch of the Huron-Iroquois, but a people whose culture differed from the earlier Iroquoian peoples of whom they are without doubt the descendants. After the expulsion of the Erie in 1654 the region remained uninhabited save by wanderers and hunters and not until after the Revolutionary War did it become the hunting grounds of the Seneca who had trails through it, one of which passed close to the Erie site at Ripley. Over this trail the Seneca for years traveled on their way to the settlements on the Sandusky in Ohio. Another great trail extended down what was once the Portage road to Chautauqua lake. It began at Barcelona harbor.

There have been noted numbers of sites of aboriginal occupation east of a meridian line drawn through Chautauqua lake and touching Lake Erie on the north and the Pennsylvania line on the south. West of this line, from the archeologist's standpoint, lies a practically untouched region, a strange fact since it presents an exceptionally inviting field for investigation, being as it is the borderland between the territory of the tribes of Iroquoian stock and culture region of that mysterious people for the sake of convenience termed "mound builders."

Ripley Site

For a number of years the writer had known of a site in this locality, one on the lake shore 2 miles northwest of Ripley, but until 1906 had not had occasion to visit it. In 1900 it was reported to Mr. M. R. Harrington and the writer by Prof. W. T. Fenton, when we were assistants on the archeological staff of the American Museum of Natural History. Mr Harrington did some work on the site in 1904 for the Peabody Museum of American Archeology and Ethnology, but because of various obstacles, left the major portion untouched. The excavations which he made during his short stay revealed the fact that the site was a most prolific one. In view of the fact that the New York State Museum had few or no specimens of the Erie culture, and indeed as very little was known of this culture, the site was chosen as the field for the season's operations and a leasehold obtained. The Ripley site is situated on the William and Mary Young farm in lot 27, Ripley, Chautauqua county. It covers an elevation locally known as "Dewey knoll" situated on the cliffs of Lake Erie. On the east a stream has cut through the shale and eaten down the bluffs to the lake level so that a landing is easily effected from the water. This landing is one of the few between Barcelona harbor and the mouth of Twentymile creek in Pennsylvania, where there is easy access to the land on the bluffs above. The stream has cut the east side of the knoll so that for several hundred feet south from the lake the bank rises steep and in places almost sheer from the creek bed. The place is one, therefore, naturally adapted for a fortified refuge and must have been an attractive spot indeed for the aborigines who built upon it a village, a circular earthwork, and who found in the soft sand a most suitable place for the burial of their dead.

Surface Features of the Site

The site was found to be mainly on the level top of the knoll, although a number of graves were found on the south and west slopes. The "unoccupied soil" began at the lake bank and ran back inland to the southern slope. The soil bordering the bank line was a light sandy loam heavily intermixed with carbonaceous substances, animal phosphates, vegetable mold and particles of animal bone. Back to the south it was generally a light shifting sand which rested upon a more compact stratum. At places, especially a few feet down the slopes, the clay stratum outcropped. Here the soil was bare or only sparsely covered with grass. (See plate 81.)



View looking northwest over Dewey knoll toward Lake Erie

The entire knoll was covered by a peach and plum orchard (since prooted) and it was between the rows of trees that work was carried on. The owner naturally objected to carrying the excavations so near the roots of the trees and thus it was sometimes impossible to take out a skeleton or to open a pit when it lay beneath a tree. In such cases slanting shafts were sunk beneath the roots and the pit examined. This was a somewhat dangerous operation as sometimes the overlying sand would cave down and engulf the curious but incautious archeologist who after a time would be rescued by his assistants.

Preliminary post holing over the knoll soon revealed the character of the site, and in consequence it was divided into two sections, the village and the burial. Parallel and adjacent trenches were staked out and the lines run as far as post holing and surface indications revealed a disturbance or modification of the soil by its former occupation.

Surface Evidence of an Occupation

The surface evidence of an occupation in that portion of the site afterward found to be the village section was pronounced. The ground was strewn with heat-cracked stones, fragments of shale anvils, broken flint nodules, with here and there a fragment of weathered pottery hidden among the roots of the tall grass. The luxurious growth of grass in patches when surrounded by a scantier growth points out a spot of soil enriched by some abnormal agency. The rank thick grass and clover here in the village site was conspicuous and pointed out the presence of occupied soil or "Indian dirt," as archeologists sometimes term it. Except on the western slope, the burial section of the site revealed no trace of its character. On this hillside where the elements had washed down the loose sand some of the graves were left so near the surface that the skeletons had been thrown up by the plow. The broken and crumbling bones, however, would hardly be recognized by the ordinary observer as human remains. Other than the bits of human bone on the surface there was no external indication where graves were located, unless it were conjectured that if graves were to be found at all they would be in the soil most easily excavated.

Village Section

The village section occupied the level top of the knoll bordering the lake bank and ran back south on the west side about 200 feet, and on the east side to the declivity that formed the bank of the eastern hillside. This bank ran at nearly right angles to the knoll



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Plate 80





Fig. 1 Looking over the northeast side of the knoll. Access to the land the lake is from the mouth of the creek.

Fig. 2 View over the falls looking toward the mouth of the creek lake.

proper, the whole eastern slope forming an arm that sloped down to the level just above the creek. On the southern bank of this arm were refuse dumps. The east arm was post holed at intervals of a rod, 220 holes being dug. Hardly a sign of occupancy was found except near or along the level. There was no "occupied soil" or "Indian dirt," the soil being in general a stiff clay mixed with sand and gravel and much more compact than the top soil on the level.

An examination of the surface of the village site led to the discovery of a circular earth belt, a part of which was cut off by the lake bank. On either side of this earth ring were pits and occupied soil. The signification of this belt is discussed hereinafter under the title "Significance of some of the data."

Diminution of the Village Plot by the Encroachment of the Lake

It is highly probable that most of the village site has been lost by the encroachment of the lake, which eating down the shale cliffs caused the landslides. Certain it is that land is lost in this way each year. The belief that a part of the occupied area has disappeared is strengthened by the fact that this section is small in comparison with the rest of the site, by the fact that the occupied soil exposed at the bank is deep, by the fact that the bank line intersects a part of the circumference of the circular earth belt and by the fact that the exposed bank shows all along the level top of the exposed occupied soil and pits. It is probable that originally there was considerable space between the shore side of the circle and the bank and that part of the village occupied that space. Village sites upon hills generally extended to the edge of the declivities and if we can establish where the bank line was at the period of the occupation we may say how far the village probably extended. To establish accurately this line is a difficult matter, but inquiries led to the information that from 6 to 12 inches of land was lost each year. Using this assumption as a datum we may infer that the site has lost at least 150 feet since the time of its occupation. The date of this occupation is discussed elsewhere.

Method of Excavating in the Village Section

The village section was staked out in parallel and adjacent trenches 16 feet wide. Excavations were commenced at the wire fence 20 feet from the shore line. A sectional trench 3 feet wide was dug and the dirt thrown back. This left a cross section of the trench exposed and the 3 feet of floor served as a working space.

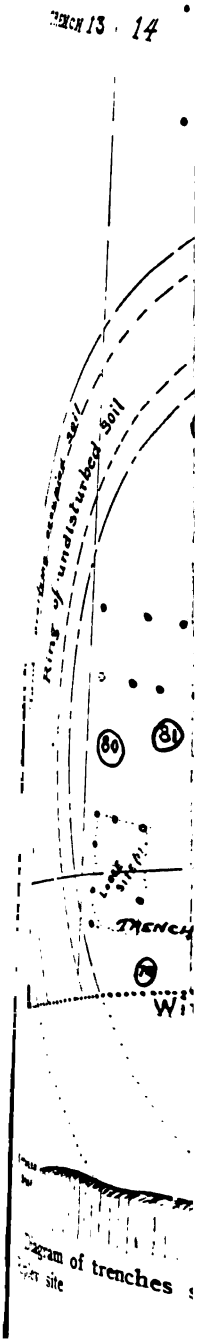


Plate 81

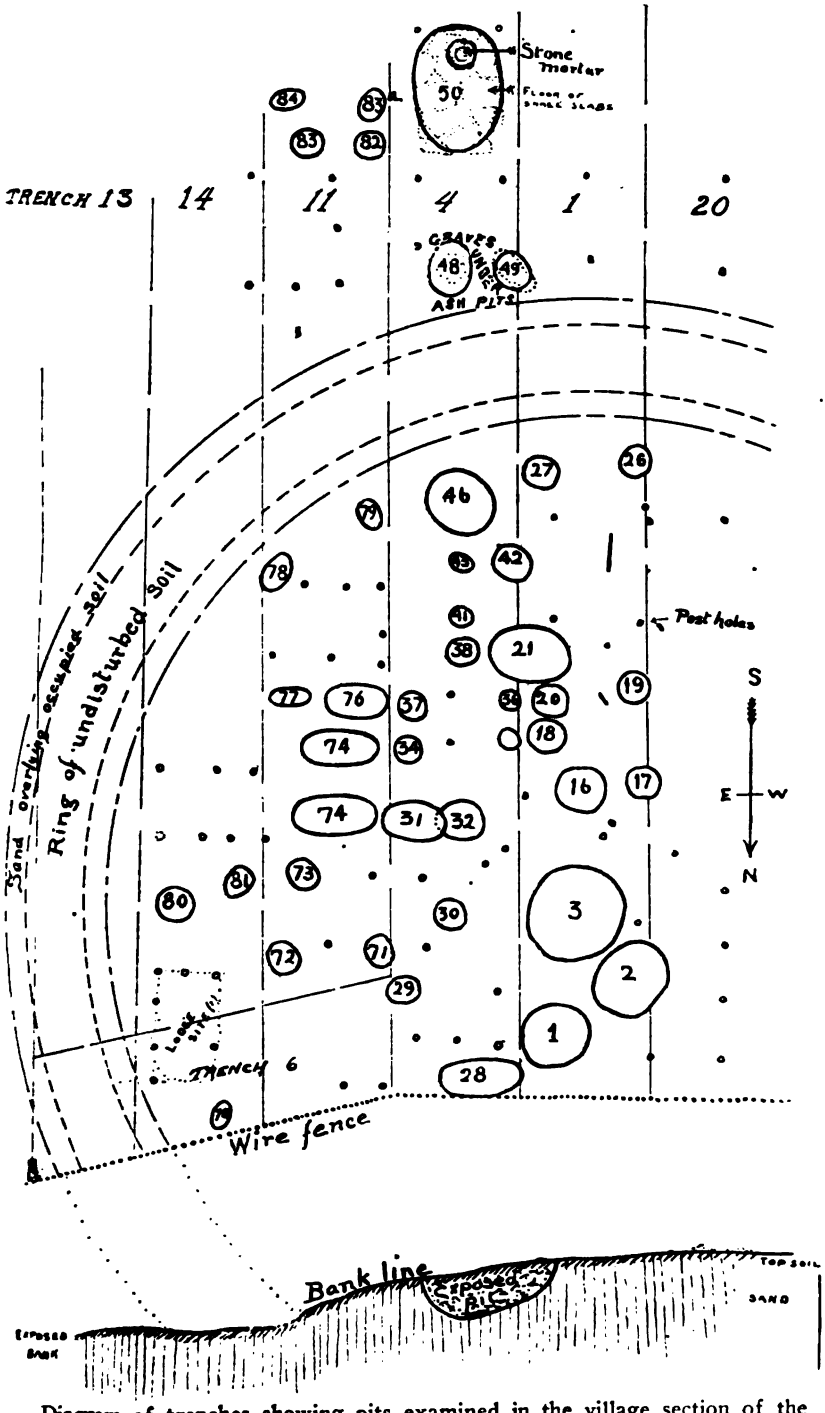


Diagram of trenches showing pits examined in the village section of the Ripley site

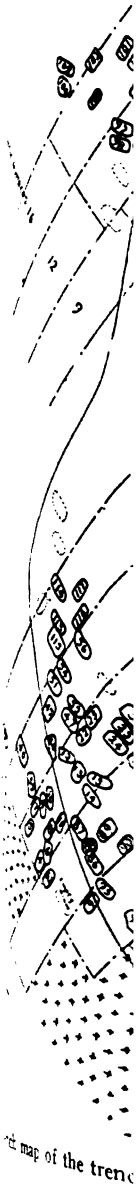
examined this cross section and if indications
obable presence of objects he troweled into the
earth to fall to the floor until it had filled, when
a laborer. If the indications pointed to a barren
spaded ahead until signs of disturbance again
ie section was again examined. When a pit was
working space was made and the pit vertically
le. The pit filling was then troweled from top to
e being taken not to break the specimens that
t with any trowel stroke. As the work progressed
he pit were taken and all the important specimens
in trays for subsequent numbering. The refuse
animal bones, potsherds, flint chips and rude
placed in labeled bags. A diagram of the pit was
ails of its excavation recorded in the trench book.
ntinued until the trench became barren, when
s worked.

t or post hole was charted, the varying character
e manner of its disturbance was noted and it is
ie familiar with our methods to take a specimen
and after examining its number and referring to
out on the map or on the actual site itself exactly
as found.

acy in field records, three of a different kind
any circumstance omitted in one might be found
s. The first record was made in a "trench book"
actual work progressed; the second record was
and supplemented the trench book in the matter
locations, positions etc. of trenches, pits and
the details of the particular thing described on
was a survey record, in which every pit, grave or
charted to a degree of mathematical exactness.
are supplemented by drawings, diagrams, maps

Method of Excavating Graves

n was staked out in the same manner as the vil-
workmen in excavating removed the disturbed top
of 3 feet, leaving a working space 3 by 16 feet.
continued until signs of deeper disturbances
"signs" were foreign substances in the regular
-burned stone, flint chips, charcoal and lumps of
ie character here found once disturbed is never



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A diagram of the pit was
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drawings, diagrams, maps

Graves

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s of deeper disturbances
substances in the regular
ps, charcoal and lumps of
d once disturbed is never

Plate 82



Sketch map of the trenches and graves in the burial plot of the Ripley site

again so compact as originally, and even if there were not intruding substances in the sand its very looseness as distinguished from the rather compact sand surrounding it was a sign of its disturbance. The topsoil over the grave was removed and its outline ascertained. The superincumbent earth was removed for a foot and a depth of 6 inches below explored for signs of the grave bottom and if not found the earth for another 6 inches was shoveled out with great care, the shovel scooping up the earth rather than spading into it. The trowel was used again to dig down and the process repeated until the skull or pottery vessel top was reached. The soil was then removed carefully with trowels. The skeleton and grave bottom were cleaned with fine pointing trowels and finally swept with a brush, care being taken not to move any bone or other object in the grave. A diagram of the grave and its contents was made, the exact position of these objects ascertained by means of a compass and tape. The dimensions of the grave, its number and position in the trench and the character of the soil and other items of importance were recorded in the field book. If the burial was of sufficient interest photographs from one or more positions were made. The skeleton when removed was wrapped in excelsior or cotton and placed in a labeled box but not finally packed until dry. The objects found in the grave were placed in a tray with a proper label and afterward marked with the serial field number, this number being distinguished from the museum serial by prefixing the letter "F." Data slips numbered to correspond with the specimens were filled out and give all the necessary details. Any information not found on the slip may be found in the field record. The various records thus countercheck one another.

New York State Museum Bulletin 117 describes the graves in this site.

Significance of Some of the Data

From the data secured in the course of the operations one might construct a fairly correct account of the life and activities of the people who left so many significant traces. One might picture the scenes of primitive agriculture, the excitement and dangers of the chase, the industries of the pot-maker or the flint-worker or the home life of the warrior father and his wife and children, but this picture is left for the reader to produce. Our work is rather to tell how the facts were gathered and for the guidance of those who wish to revivify the scenes of the past, to suggest how this may be done. Hasty conclusions and preconceived ideas are to be studiously avoided and no theory should be considered more than tentative unless the proof is so strong as to eliminate doubt.

Plat





Grave XX, Pit 4

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'as a sign of its disturbance.
d and its outline ascertained.
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rather than spading into it.
and the process repeated until
d. The soil was then removed
ıd grave bottom were cleaned
wept with a brush, care being
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The skeleton when removed
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17 describes the graves in this

of the Data

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: as to eliminate doubt.

Plate 83





Fig. 1 Grave XX, pit 44

Fig. 2 Grave XXV, pit 51

Indications of an Earthwork

Excavations were not carried on long before enough evidence was secured to point out the former presence of a circular earth ring in the village section. This ring seems to have inclosed the main portion of the village and to have separated it from a group of pits and lodge sites to the south. Just beyond pits 26, 27, 78 and 79 the soil became very hard and compact and the occupied soil covered with a layer of sand and gravel. The earth in the center of this belt was hard and compact. It was evidently disturbed and intermixed but exhibited few signs of modification by the substances incident to human occupation, such as ashes and charcoal. A few inches of the disturbed subsoil overlay the occupied soil on either side of the barren belt. From these facts it was inferred that at some time an earth ring or wall had been leveled down and the earth of which it was composed thrown over the occupied soil. The outline of the belt was traced and found to be circular in form, or rather crescentic, the ends of the belt touching the lake bank. The original form had undoubtedly been circular, the encroaching lake having undermined the cliffs which, falling, had carried away a part of the village site and with it the missing portion of the ring.

The soil most modified by the occupation, that is to say, the top soil most deeply stained and intermixed with waste products of aboriginal activities, was that part embraced within the area of the dirt ring. Just outside this ring there was another occupied layer but it did not extend far. Some time after the discovery of the former presence of the earth wall, on September 4th, Mr George Morse, an old settler, visited the scene of the operations and introduced himself as one of the pioneers of Chautauqua county, and as a man who in his boyhood remembered the site and its features. Mr Morse made a verbal statement to the archeologist which was taken down verbatim.

The earth ring is found in many places in western New York and elsewhere and is the base upon which a line of sharpened stakes or palisades was placed to fortify the inclosure. This being true, the village here must have been within the circular walls of sharpened posts that rose from the earth circle. A number of families probably had lodges outside the fortification. These may have been the less cautious or those who were crowded out through lack of space within the narrow confines of the picket wall.

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Plate 84



Fig. 1 Grave LXXXI, pit 120. Two males in single grave.
Fig. 2 Grave XCV, pit 135. Male and female in single grave.

Summary of the record of the graves

BURIAL	PIT	DEPTH IN INCHES	ORIENTATION			cPOSITION	SEX	bCONDITION	OBJECTS	POSITION
			Face	Skull	Side					
1	4	42	E	S	R	F	....	D	1 pot	15″ before face
2	5	56	....	....	....	....	....	E	.....	.....
3	6	42	W	N	R	....	....	D	.....	.....
4	7	42	E	S	R	....	F	.....	.....	.....
5	8	38	W	N	R	....	....	.....	.....	.....
6	9	30	NE	SE	R	....	M	.....	1 pottery pipe	Above skull
7	10	48	....	....	....	Bdl	....	Cal.	1 oval blade	Near skull
8	11	60	W	N	R	F	M	.....	Pot, celt, paint	At occiput
9	12	37	....	....	....	....	Juv	.....	.....	.....
10	13	42	W	S	L	....	....	.....	.....	.....
11	14	42	E	N	L	....	M	.....	Pot, bone, tube	Top of skull
12	15	40	NW	NE	R	....	....	Cal.	2 pots	1 before face and 1 at pelvis
13	22	28	E	S	R	....	Juv	.....	Pot	Before face
14	23	52	E	S	R	....	....	.....	Pot	At occiput
15	24	48	....	....	....	....	....	.....	.....	.....
16	25	42	....	....	....	....	....	.....	.....	.....
17	33	48	....	....	....	....	....	E	Pot	In bone dust
18	39	36	SW	NW	R	....	....	.....	Pot, arrow, glass bead fragment	Pot at occiput, arrow in spine
19	40	49	N	E	R	....	....	.....	Pot	Before face
20	44	49	W	S	L	....	M	.....	Pipe	At top of skull
21	45	46	E	S	R	....	M	.....	.....	.....
a22	47	60	S	E	L	....	M	.....	Pot	At occiput
a23	48	30	S	E	L	....	F	.....	Pot	At occiput
24	49	42	....	....	....	....	....	E	.....	.....
25	51	51	E	S	R	F	M	D	Pot, pipe	Top of skull below jaw
26	52	48	S	E	L	....	....	E	Pot	At top of skull
27	54	55	....	....	....	....	....	E	.....	.....

28	56	60	....	....	....	....	....	E	.....	.....
29	57	29	....	....	....	....	....	E	Pot	At occiput (?)
30	58	24	N	E	R	....	....	D	2 pots	At occiput
31	59	10	....	....	....	....	....	E	Pot	Indeterminate
32	60	10	....	....	....	....	....	.....	Pot	Indeterminate
33	61	30	....	....	....	....	....	.....	Pot fragments	Indeterminate
34	62	33	....	....	....	....	Juv	E	2 pots, 1 pipe	Indeterminate
35	63	40	NE	SE	R	....	M	D	Flints etc	Before face
36	64	25	N	....	....	....	....	.....	Pot, arrows	Indeterminate
37	65	48	NW	NE	R	....	M	D	Pot	Before face
38	67	52	NNE	SSE	R	....	....	C	Pot	At occiput
39	68	32	N	E	R	....	Juv	D	.....	.....
40	69	42	....	....	....	....	....	E	Pot	Indeterminate
41	86	53	N	E	R	....	M	D	Bone implements, pot, pipe, flints, celt	Pot before face, pipe over head (see records)
42	87	34	....	....	....	....	Juv	E	Pot	Indeterminate
43	88	48	....	....	....	....	....	E	Pot	Indeterminate
44	89	38	W	S	L	....	....	D	.....	.....
45	90	40	W	S	L	....	....	D	.....	.....
46	91	48	N	E	R	....	....	D	2 pots	Before face
47	92	40	S	E	L	F	M	D	Pot, celt, pipe	Pot above skull, pipe at abdomen, celt at jaw
48	93	30	SE	SW	R	....	Inf	D–E	Decayed wood	.....
49 (*a*)	94	51	N	E	R	....	....	D	.....	.....
(*b*)	94	.....	NE	SE	R	....	....	D	Flints	Before eyes
50	95	.....	....	....	....	....	....	E	Pot	Indeterminate
51 (*a*)	96	42	S	E	L	....	F	D	.....	Near skulls
(*b*)	96	42	S	E	L	....	Inf	.....	9 pots, etc	(See records)
(*c*)	96	42	S	E	L	....	Inf	.....	(See records)	.....
(*d*)	96	42	....	....	R	....	M	.....	Bar celt	At abdomen
52	97	42	....	....	....	....	F	D–E	.....	.....
53	98	38	W	S	L	....	F	.....	Pot	At occiput
54	99	38	S	W	R	....	....	D–E	.....	.....
55	100	20	W	S	L	....	M	D–E	Pot, celt	Top of skull, face
56	101	30	N	E	R	....	F	D	Pot	Top of skull

a Ash pit burials. *b* C=fair, D=poor, E=entirely disintegrated, Cal.=calcined. *c* F=Flexed. Unless otherwise stated the position is flexed.

57	102	24	E	N	L	....	M	D–E	2 pots	Top of skull
58	103	22	W	N	R	....	....	D	Pot	At occiput
59	104	24	....	....	....	....	....	E	....	....
60	105	24	....	....	....	....	....	E	Pipe, pot	Indeterminate
61	106	56	....	....	....	....	....	E	Pot	Indeterminate
62	107	42	SE	SW	R	....	M	C	Pot, flints, bear's skull	At occiput
63	109	38	S	E	L	....	....	D	....	....
64	110	38	S	E	L	....	....	D	Pot	Top of skull
65	111	40	S	E	L	....	....	C	....	....
66	112	72	N	E	R	....	F	D	Pot	At occiput
67	113	63	S	W	R	....	....	C	Pot, ocher	Before face
69(*a*)	114	54	N	E	R	....	Ad(F?)	D	Pot	Between skulls
(*b*)	114	54	N	E	R	....	Inf	D		
70(*a*)	115	42	SE	NE	L	....	F	D	....	....
(*b*)	115	42	SE	NE	L	....	Inf	.....	....	....
(*c*)	115	42	SE	NE	L	....	Inf	.....	....	....
71	116	60	W	N	R	....	M	D	....	....
72	117	58	SW	SE	L	....	M	C	Pot, flints, steel etc.	Occiput etc. (see records)
73(*a*)	118	48	SE	SW	R	....	....	.....	....	....
(*b*)	118	48	NE	SE	R	....	....	.....	....	....
74(*a*)	119	36	S	W	R	....	....	D	Pot	At occiput
(*b*)	119	39	....	....	....	....	....	D–E	Pot	At occiput
75	120	42	S	W	R	....	M	D	Pipe	Near sternum
76	121	42	....	....	....	....	M	D	Flints	Near sternum
77	122	48	....	....	....	....	....	.....	....	....
78(*a*)	123	48	S	E	L	....	F	D	....	....
(*b*)	123	48	S	E	L	....	F	D	Pot	Occiput
(*c*)	123	54	....	....	....	....	Ad	.....	4 round pebbles	Around skull

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
88	127	42	NW	NW	L	....	F	D	Pot	At top of skull
89(*a*)	128	39	NW	NW	L	....	F	D	Pot	At top of skull
(*b*)	129	42	NW	NW	L	....	F	D	Pot	At occiput
90	130	42	NE	NE	R	....	....	....	....	....
91	131	52	NE	NE	R	....	F	....	Copper rings	On fingers
92	132	40	N	N	R	....	F	D	Pot	At occiput
93	133	47	SW	E	back	....	F	D	Celt	Top of skull
		39	W	S	L	....	F	D	Pot, flints, shell beads	[illegible]

79	124	42	S	W	R	....	M	D	.....	.....
80	125	30	....	....	....	....	....	E	Charred bark	.....
81(*a*)	126	48	SW	SE	L	....	M	.....	Pot	At occiput
(*b*)	126	48	NW	NE	R	....	M	.....	Pot	At top of head
82	127	48	W	S	L	....	M	D	Pot	At top of skull
83	128	49	N	E	L	....	F	D	Pot	At occiput
89(*a*)	129	42	up	SE	R	....	F	D	.....	.....
(*b*)	129	42	NE	SE	R	....	....	D	.....	.....
90	130	52	NE	SE	R	....	F	D	Copper rings	On fingers
91	131	40	N	E	R	....	F	.....	Pot	At occiput
92	132	47	SW	SE	back	....	F	D	Celt	Top of skull
93	133	39	W	S	L	....	F	D	Pot, flints, shell beads, etc.	Occiput, face, neck etc. (see records)
94	134	42	E	S	R	....	F	D	.....	.....
95(*a*)	135	42	SW	SE	L	....	M	.....	Pot, flints	Between skulls
(*b*)	135	.....	up	S	back	....	F	C	.....	at female's scapula
96	136	48	down	SE	L	....	....	.....	.....	.....
97	137	37	S	E	R	....	F	D–E	.....	.....
98(*a*)	138	48	NE	SE	R	....	M	.....	.....	.....
(*b*)	138	48	NE	SE	R	....	F	.....	Flints	Between skeletons
99	139	42	S	E	L	....	....	.....	Pot, flints, ocher, copper bead	Top of skull, face, abdomen, feet
100	140	42	S	E	L	....	M	.....	Pot	At top of skull
101	141	36	S	E	R	....	M	.....	Pot, pipe	At face, on arm
102	142	32	S	E	L	....	Inf	D–E	Pot	Top of skull
103	143	32	N	E	R	....	....	.....	Red ocher	At occiput
			N	E	R	....	Inf	D–E		
104	144	40	N	E	R	....	M	.....	Flints	Top of skull
105	145	48	....	....	....	....	....	E	Pot	Indeterminate
106	146	42	SW	NW	R	....	F	D	Pot	Before face
107(*a*)	147	45	....	....	....	....	F	D–E	Pot	At occiput
(*b*)	147	45	....	....	....	....	Inf	.....	.....	.....

a Ash pit burials. *b* C=fair, D=poor, E=entirely disintegrated, Cal.=calcined. *c* F=Flexed. Unless otherwise stated the position is flexed.

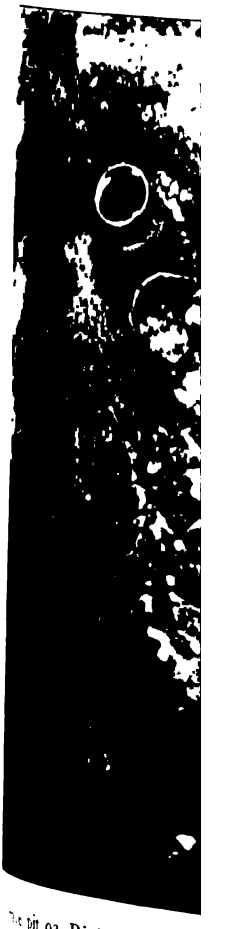
Post Holes and Lodge Sites

A large number of post holes, that is small holes from 18 to 24 inches deep, filled with substances somewhat different from the surrounding soil, were discovered in the village layers (see diagram of pits, plate 81). The positions of these holes were carefully chartered and were found to bear a certain relation to one another. The character of the soil inclosed by lines bounding these holes was carefully noted and seemed to indicate the dirt floors of lodges. The post holes therefore were probably the holes made by the stakes that formed the uprights of dwellings. Although a number of lodge sites, so called, were discovered it is not to be thought that there were not other lodges elsewhere.

Mortuary Customs Indicated

The areas of most of the graves were large in proportion to the space occupied by the skeletons. In general the bones rested in the center or at one corner of the excavation, leaving a wide space about the bones. Nearly all the skeletons were arranged in a flexed position. From these circumstances it might be inferred that the dead were carefully placed in the graves and arranged by persons who descended into them. This assumption appears strengthened when it is considered that the pottery vessels which probably contained food could not have been easily dropped into the grave and have remained upright as they were in almost every instance. The whole make-up of the graves and the positions of the articles found in them indicate the hand of design. The decayed substances found over the grave bottoms seem to indicate that other perishable possessions were placed in the graves, such as articles of wood, bark, skins and fabrics of bark or reeds. It is not to be supposed that objects were not placed in some graves because none were found. The lack of stone or pottery articles suggests that only perishable substances and utensils have been interred. In the bottoms of many of the grave pits just beneath or mingled with the animal phosphate were layers of charred vegetable matter, either bark, grass or reeds. From this fact it would appear that in such pits fires had been kindled, either to dry the damp earth or to warm the bed for the sleeper whose body must rest so long within it. This is in accord with certain traditions. Thin and sometimes almost imperceptible layers of decayed vegetable matter over some of the skeletons strongly suggest the use of bark or wood as a covering for the bodies before the earth was finally thrown back into the excavation. In a few cases flat pieces of

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pit 92. Ripley, at S
the decayed bone
was in one solid pi
as indicated by th
vessel, typically E
animal.

odge Sites

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ɔdies before the earth was finally
In a few cases flat pieces of

Plate 85



Grave pit 92, Ripley, at 84 feet in trench 10 was 3 feet 4 inches deep. It contained the decayed bones of an adult male of mature years. The spinal column was in one solid piece, the result of ankylosis. With the skeleton in the places indicated by the photograph were a double edged celt, a perfect pottery vessel, typically Erian, and a stone effigy pipe, representing some mythical animal.

charred bark were found above the bones. The use of a bark or animal skin covering is also suggested by the finds in grave 51, pit 96, where above the copper bracelets a fragment of bark and a piece of deerskin were found preserved by the copper salts. When it is considered, moreover, that a primitive people would naturally reverence the dead, it seems highly probable that they would shrink from casting clods of clay or masses of mud upon the form of those whom they had evidently arranged and dressed with every manifestation of solicitude. Moreover, to have covered the corpse with a shroud of skin or a covering of bark would have added an element of mystery to the interment. The body would have been obscured during the process of burial. To cast stray stones and earth upon the form beneath would have shocked the primitive people to whom care for the dead was probably an important religious rite. If the vessels of clay contained food for the skyward journey it would hardly seem that this food would have been tainted by earthly flavors, but rather covered for cleanliness. This supposition seems to be given weight by the fact that two pots were found in the clay stratum over the mouths of which were wads of clay, the vessels being empty. From the fact that weapons and utensils were buried one is led to think that the people believed or affected to believe that these things, or perhaps the spirits of these things, would be of value to the spirit of the dead. All the clay pipes from the burials contained charred tobacco and from this fact it might be conjectured that the pipe of the sacred herb had been lighted in the grave for a consolation to the spirit as it started out in the new and strange world of spirits.

The positions of the various objects, especially of the pottery vessels, are highly interesting. Most of them were near the head, as were some of the pipes. The table appended herewith gives a summary of the positions of the pots in relation to the skeletons.

Position of the pots. Before face, 11; at occiput, 25; top of skull, 16; near abdomen, 1; at pelvis, 1; between skulls, 2; indeterminate, 14.

Graves in ash pits. Two graves were found in true ash pits. These pits were situated just beyond and outside the earth ring and were side by side (see record of pits 48 and 49). Both pits were shallow, 2½ feet, and the skeletons had only light covers of charcoal and ashes to separate them from the ordinary pit refuse. It may be possible that the ash pits were within or near a lodge site and were used as graves when the ground elsewhere was frozen. Broken pots were found in both of these graves.

Plate



Plate 86



Grave pit 96 in trench 10 contained the skeleton of an aged female, the lower right arm of which was almost entirely preserved by the copper salts formed from the heavy copper arm bands and finger rings. Two infants' skeletons were found at her side and the skeleton of a headless male, near which was found a bar celt. Ten pottery vessels were buried in this family grave.

eans of excavating. Trowellike implements of antler several ash pits and were probably the tools used for id graves. The sand might have been easily loosened antler or wood or with the shoulder blades of elk ve been scooped up with shallow bark baskets.

llings in at least forty cases were heavily intermixed d wood and bark. This suggests that the topsoil had it to facilitate digging in winter.

raves. In most cases the graves were dug as deep possible with rude implements. This depth was to m or into it for a few inches. Because of the poor ie clay the skeletons buried within it decayed much than those in the loose sand. A table of depths

Table of depths of graves

NO. OF GRAVES	INCHES	NO. OF GRAVES	INCHES	NO. OF GRAVES
2	36	3	51	2
1	37	2	52	3
1	38	6	53	1
4	39	2	54	2
1	40	7	55	1
1	42	21	56	2
1	45	1	58	1
6	46	1	60	4
3	47	1	63	1
1	48	15	72	1
1	49	3		

it of graves and position of skeletons. An examina- of the burials shows that apparently no fixed system graves was observed. The graves seem to have been sand was softest and most easily excavated. It will ever, that the graves cluster about open spaces. From e inferred that they were arranged about large trees decayed.

ion of the table of orientation reveals that the bodies ently arranged to face any particular cardinal point. does not necessarily indicate the lack of system. It position in which a person died governed the position

Orientation by

HEAD

Face west or

Face east

Total

HEA

Face north

Face south

Total

HEA

Face east

Face west

Face u

Total

HEA

Face south

numbers refer to the buria
male; F, female; inf, infan
skeleton is probably that
of the condition of the

Orientation by direction of head[1]

HEAD NORTH

Face west on the right side

6F, 8, 11M, 116M 4

Face east on left side

14M, 102M 2

Total 6

HEAD EAST

Face north on right side

40, 68juv, 86M, 91, 94, 101F, 112F, 114:1, 114:2, 128, 131F, 137M, 143:1, 143:2inf, 144M 15

Face south on left side

47M, 48F, 52, 92M, 96:1F, 96:2juv, 96:3juv, 109, 110, 111, 123F, 123:2F, 139, 140M, 141M, 142inf 16

Total 31

HEAD SOUTH

Face east on right side

4, 7F, 22juv, 45F, 51M, 134F 6

Face west on left side

13, 44M, 89, 90, 98, 100M, 127M 7

Face up on back

135:2 1

Total 14

HEAD WEST

Face south on right side

99, 113, 120, 124M 4 4

[1] The numbers refer to the burials and the letter following to the sex, thus, M, male; F, female; inf, infant, and juv, juvenile. Where there is no letter the skeleton is probably that of an adult, the sex being indeterminate on account of the condition of the bones.

HEAD NORTHEAST		
Face northwest on right side		
15M, 65, 126:2M	3	
Face southeast on left side		
115: F, 115:2inf, 115:3inf	3	
Total		6
HEAD NORTHWEST		
Face southwest on right side		
39	1	1
HEAD SOUTHWEST		
Face southeast on right side		
93inf, 107M, 118:1	3	3
HEAD SOUTHEAST		
Face northeast on right side		
9M, 63M, 67, 94:2, 118:2, 129:1 (face up)F, 129:2F, 130F, 138M, 138:2F	10	
Face southwest on left side		
117M, 135:1M, 136 (face down), 132	4	
Total		14
Not determined	34	34
Total		113

Morphological Characters

Field measurements of the bones indicate that the people were of medium height, 5 feet 7 or 8 inches being the average. A few skeletons were found that approached 6 feet. That the race was stocky is shown by the heavy development of muscular ridges, especially in the case of males whose bones were generally large.

The loose sand affording good drainage preserved the bones when they were not buried directly upon the clay stratum but in either case by the shifting of the sand or through some other agency, most of the skulls were broken or crushed while other bones were in a much better state of preservation. Some of the complete skulls are of unusual interest. In form nearly all are either dolichocephalic

MUSEUM

AST		
right side		
.....	3	
left side		
.....	3	
		6
.....		
VEST		
right side		
.....	1	1
VEST		
right side		
.....	3	3
EAST		
right side		
ice up)F, 129:2F,		
.....	10	
1 left side		
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		14
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haracters

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ome of the complete skulls are
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or subdolichocephalic, none being of the brachycephalic type c
mon to the mound-builder region 100 miles to the west. A
siderable proportion of the skulls in Erie sites 40 miles ea
characterized by alveolar prognathism, but among those foun
Ripley only two showed this development. The *os incae*
observed in a few instances and there were some skulls ha
wormian bones. In one skull the *os japonicum,* that is, the lc
portion of the malar bone when divided by a suture, was observe

The average capacity of the skulls is 1587 cubic centimeters
males and 1440 for females. The average cephalic index woul
perhaps 74.4 and the nasal index 47. A careful study of all
morphological characteristics will be made in the laboratory
reported in another place and may slightly modify the averages
given.

In a few cases humeri were observed in which the olecr
cavity was perforated. In two cases an examination of the fe
revealed the process termed the third trochanter and the hyp
chanteric fossa. Some femora are platymeric.

Pathological Conditions

With the exception of two cases of ankylosis, no pathological
ditions were noted. There are a number of bones, however,
show the repair of breaks.

Only in a few cases were possible clues to the cause of death
covered. In several skeletons triangular arrow points were f
between the vertebrae or in some other part of the osseous s
ture. A remarkable form of ankylosis was observed in the ca
an aged male whose entire spine had become cemented into one
bone. Such conditions are probably rare in Indian skeletons.
low type female skull marked by prognathism and wormian b
had the frontal bone crushed and the perforation filled and rep
by osseous matter. If it is permitted to judge character fron
form of the skull one would be strongly tempted to say tha
deceased must have been no congenial companion, to say the l

Identity of the Inhabitants

Erie

The general type of the artifacts discovered in the course o
excavations, especially the types of the pottery, closely resemble
quoian forms. In particular they resemble the Erian. The
that pieces of iron and copper were found in graves and ash
proves that the former inhabitants of the site had contact, dire

indirect, with Europeans. That few objects of European metal were found and no glass beads, save a fragment of one, indicates that the people acquired them from a single trader or by trade from other Indians. This latter conclusion in the light of evidence seems the more probable. If the inhabitants of the site had contact, direct or indirect, with the whites, then we may look for historical records by which to identify them. In the Jesuit Relations are found many references to a people who inhabited the region of which the Ripley site forms a part. These people are variously called Eries, Eriegoneckkak, Eriehronnons, Erieé, Riquehronnons, Rhiier, Nation du Chat, Cat Nation, Rhiierrhonnons, etc. etc. Besides the accounts by the Jesuits there are several maps which place the Erie Indians in this territory, notably the maps of Sanson of 1656, of Creuxius of 1660, of LaHontan of 1690, and of Hennepin of 1698. From these records and maps we may define the territory of the Eries as the region bordering the southern shore of Lake Erie between the region of the Neutrals on the eastern end of Lake Erie east to the western banks of the Genesee, westward to the western watershed of Lake Erie and the Miami river and southward to the Ohio river. In the Relation of 1647–48 we find the following description of the Erie country:

> This lake, called Erie, was formerly inhabited on its southern shores by certain tribes whom we call the nation of the Cat; and they have been compelled to retire far inland to escape their enemies, who are farther to the west. These people of the Cat Nation have a number of stationary villages, for they till the soil and speak the same language as our Hurons.

Under title of "Description of the Country of the Hurons" in the relation of 1653 there is the following paragraph:

> Beyond that same neutral nation, in a direction nearly south, there is a lake 600 miles in circumference, called Herie, formed by the fresh-water sea, which discharges into it, and thence by means of a very high cataract, into a third lake still greater and more beautiful; it is called Ontario or Beautiful Lake, but we were wont to call it the Lake of Saint Louis. The former of these two lakes was at one time inhabited toward the south by certain peoples whom we call the Cat Nation; but they were forced to proceed further inland in order to escape the enemies whom they have toward the west. This Nation has various territories, cultivates the fields, and speaks a language similar to the Hurons.

In the Relation of 1654 there is still further reference:

> They (the Iroquois) tell us that a new war has broken out, which fills them with fear, that the Eries have taken arms against them (we call the Eries the Cat Nation, because there is in their country a prodigious number

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of wildcats, two or three times as large as our tame cats, but having a beautiful and precious fur). They tell us that an Iroquois town has already been set on fire and destroyed at the first attack; that this nation pursued one of their armies which was returning victorious from the shores of Lake Huron, fell upon the rear guard of 80 picked men and entirely cut it to pieces; that one of their most distinguished chiefs, Annenraes, has been taken prisoner; in a word that the Iroquois are inflamed, and are arming to repulse the enemy, and are, therefore, obliged to seek peace with us.

This Cat Nation is very populous. Some Hurons, who have scattered everywhere since the destruction of their country, have joined them, and excited this war, which alarms the Iroquois. It is said that they have 2000 men, good warriors, though without firearms. But they fight like the French, enduring courageously the first discharge of the Iroquois who have firearms, and then pouring down upon them a hail of poisoned arrows, which they can shoot off six or eight times before the others can reload their muskets.

Sagard, who went to the Huron country as a missionary in 1623, in his interesting *Histoire du Canada,* 1636, has also some notes bearing on the Eries.

Relation of the Erie to other Iroquoian tribes. The Erie belonged to the Huron-Iroquois linguistic stock, as is patent from a review of the records. William M. Beauchamp, the distinguished authority on New York archeology, suggests that the Erie were the parent stock of the Huron-Iroquois family and further suggests that the Seneca were derived from them, possibly within historic times. There seems to be some good base in history for this opinion and the argument can not be better stated than in Doctor Beauchamp's own words, quoted from his address on *The Origin and Early Life of the New York Iroquois,* delivered before the Oneida Historical Society in 1886:

> The Senecas had a conspicuous place in the Iroquois league, though the last to enter it, forming the west door, as the Mohawks were the east. On the Dutch maps of 1614 and 1616, the Mohawks and the Senecas are alone designated, and for 50 years more the Dutch hardly mentioned any but these. That they were kindred to the Eries is conceded. In 1615 Champlain spoke of the Iroquois and the Entouhonorononns, whom some have thought the Senecas. In the explanation of his map it is said that "The Iroquois and the Antouhonorons make war together against other nations except the Neutral nation." They had fifteen strong villages, too many for the Senecas, unless the Eries were included. That the Senecas differed from the other Iroquois in religious observances, totems and clans, habits of life and other things is very clear. A marked distinction appears in their language and they were not very brotherly to the rest. Long after the League was formed they were sometimes at swords points with the Mohawks, and the French Mohawks did not hesitate to go against the Senecas, when they refused to fight against the other nations.

There is good reason for thinking them part of the Massawomekes of Captain John Smith's narrative. Early writers made these any part of the Five Nations, but later students, to identify them, as in the case of the Entouhonorons, with both Eries and Senecas, these being firm friends until 1653. Captain John Smith met these fierce enemies of Powhatan in their bark canoes on Chesapeake bay in 1608. The general description is that of an Iroquois war party, though the name of course is Algonquin. That he did not understand their language makes this almost certain. He bought some of their weapons and increased his reputation by showing these, the Virginia tribes supposing he had taken them by force. But a Maryland trader went to the Massawomekes in 1632, and there remains no doubt that this name included the Eries and the Senecas, then or previously allied. They had palisades of great trees about their villages with galleries at the top.

Destruction of the Erie. One of the most picturesque and tragic accounts of these people is given in the Relation of 1655–56. It is the story of their destruction. In the account they are called the Cat Nation (La Nation du Chat). The Jesuit account is without doubt essentially correct and differs in many respects from the rather fanciful Seneca tradition. In one particular both accounts agree, and that is that the Erie brought destruction upon themselves by their own folly.

The account as given in the Thwaite's edition of the Relations follows:

CAUSE OF WAR AGAINST THE CAT NATION

The Cat Nation had sent 30 Ambassadors to the Sonnontouahronnons to confirm the peace between them; but it happened that by some unexpected accident, that a Sonnontouahronnon was killed by a man of the Cat Nation. This murder so incensed the Sonnontouahronnons, that they put to death the Ambassadors in their hands, except five who escaped. Hence the war was kindled between those two nations, and each strove to capture and burn more prisoners than its opponent. Two Onnontagehronnons among others were captured by men of the Cat Nation; one of them escaped and the other, a man of rank, was taken home by the enemy to be burnt. He pleaded his cause so well that he was given to the sister of one of the 30 Ambassadors who had been put to death. She was absent from the village at the time; but the prisoner was nevertheless clothed in fine garments, and feasting and good cheer prevailed, the man being all but assured that he would be sent back to his own country. When she to whom he had been given returned, she was told that her dead brother was to be restored to life, that she must prepare to regale him well, and then to give him a most gracious dismissal. She, however, began to weep and declare that she would never dry her eyes until her brother's death was avenged. The elders showed her the gravity of the situation, which was likely to involve them in a new war; but she would not yield. Finally they were compelled to give up the wretched man to her to do with him as she pleased. All this occurred while he was still

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joyfully feasting. Without a word he was taken from the feast and co
ducted to this cruel woman's cabin. Upon entering he was surprised at bei
stripped of his clothes. Then he saw that his life was lost, and he cried o
before dying, that an entire people would be burned in his person, and th
his death would be cruelly avenged. His words proved true; for no soon
had the news reached Onnontague, than 1200 determined men started for
to exact satisfaction for this affront.

We have already observed that the Cat Nation is so called from the lar
number of Wildcats, of great size and beauty in their country. The clima
is temperate, neither ice nor snow being seen in the winter; while in summ
it is said that grain and fruit are harvested in abundance, and are of unusu
size and excellence.

Our warriors entered that country remote though it was from Onnontag
before they were perceived. Their arrival spread such a panic that villag
and dwellings were abandoned to the mercy of the Conqueror,--who af
burning everything, started in pursuit of the fugitives. The latter number
from two to three thousand besides women and children. Finding themselv
closely followed, they resolved, after five days' flight to build a fort
wood and there await the enemy who numbered only 1200. According
they intrenched themselves as well as they could. The enemy drew ne
the two head chiefs showing themselves in French costume, in order
frighten their opponents by the novelty of their attire. One of the t
who had been Baptized by Father le Moyne and was very well instruct
gently urged the besieged to capitulate, telling them that they would
destroyed if they allowed an assault. "The Master of life fights for u
said he; "you will be ruined if you resist Him." "Who is the Master
our lives?" was the haughty reply of the Besieged. "We acknowledge no
but our arms and our hatchets." Thereupon the assault was made and
palisade attacked on all sides; but the defence was as spirited as the atta
and the combat was a long one, great courage being displayed on both sid
The Besieging party made every effort to carry the place by storm, but
vain; they were killed as fast as they advanced. They hit on the plan
using their canoes as shields; and bearing these before them as protecti
they reached the foot of the entrenchment. But it remained to scale
large stakes, or tree trunks of which it was built. Again they resorted
their canoes, using them as ladders for surmounting the stanch palisa
Their boldness so astonished the Besieged that, being already at the end
their munitions of war,—with which, especially powder they were
poorly provided,—they resolved to flee. This was their ruin; for, al
most of the first fugitives had been killed, the others were surrounded
the Onnontaguehronnons, who entered the fort and there wrought s
carnage among the women and children that blood was knee deep in cert
places. Those who had escaped, wishing to retrieve their honor, after recov
ing their courage a little, returned to the number of 300, to take the ene
by surprise while he was retiring and off his guard. The plan was good
it was ill executed; for frightened at the first cry of the Onnontaguehronno
they were entirely defeated. The Victors did not escape heavy losses,
great indeed, that they were forced to remain two months in the ener
country, burying their dead and caring for their wounded.

The Erie are commonly said to have been exterminated but this is not entirely true. They became exterminated only in the sense that they ceased to exist as an independent people. The surviving Erie who did not flee to other tribes became the captives of the Iroquois, who in accord with their usual policy adopted the individuals into their families and gradually absorbed them.

Date of occupation. From the testimony of the records it would thus appear that the inhabitants of the Ripley site must have been Erie. The testimony of the relics leads to the conclusion that this occupation was of the early historic period. Without doubt the site bridges the prehistoric to the historic. That it must have been earlier than 1654 is known from the fact that the Erie were expelled from their territories by the confederated Iroquois in 1654. That it is not so late as 1654 appears from the fact that by this date the Erie had opportunity to trade extensively with European and yet few European articles were discovered. From the time the Dutch entered New York and the colony of Jamestown was settled, the Erie had opportunity to acquire articles by trade with other Indians, especially the Iroquois. Considering all things, one would be strongly led to place the date of the cession of occupation before 1620. It is highly probable, moreover, that the first occupation of the site was early in the seventeenth century if not during the last few years of the sixteenth.

Description of Implements

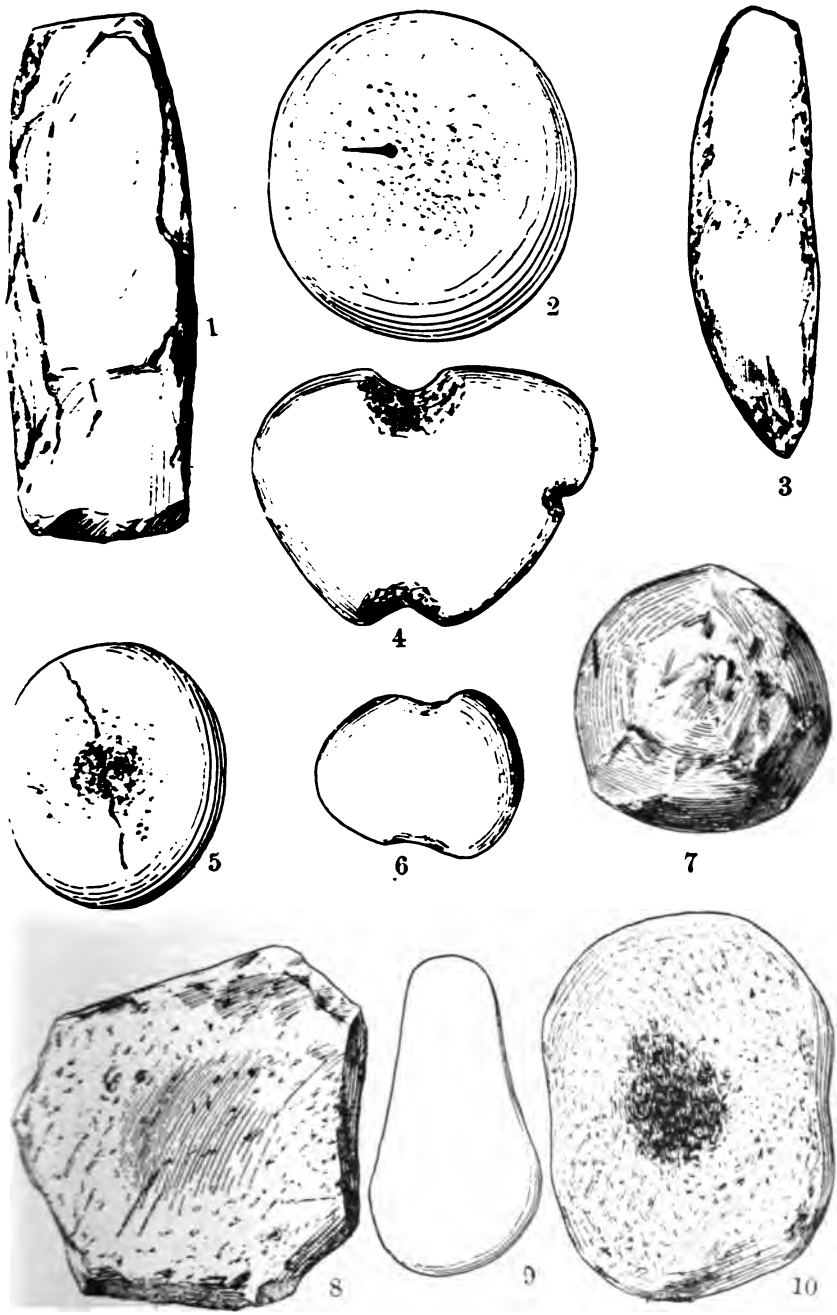
Stone

Objects of Rough Stone

The rough and massive stone objects requiring but slight modification from natural forms to adapt them to the purposes intended include hoes, anvils, shaft rubbing stones, pitted hammerstones, lapstones, net sinkers, rounded pebbles, mortars and some celtlike implements.

Figure 1 in plate 87 illustrates a flat piece of shale which has been roughly shaped and from its marks of use evidently has been used for a digging implement, perhaps a hoe. Objects of this class were not common, this specimen being the only complete one found on the site. Large numbers of rounded water-washed pebbles were found distributed over the site. All had been brought from the lake shore and they were not found in the undisturbed soil. These pebbles varied in size from 2 inches to 5 inches in diameter and most

Plate 87



Types of rude stone implements improvised from natural pebbles, the shape of which required only slight modification to adapt them for the purposes intended. 1=Hoe or rude celt. 2=Hammer. 3=Pick. 4, 6=Net sinkers. 5=Pitted hammerstone. 7=Hammer. 8=Anvil and grinding base. 9=Smoother. 10=Pitted hammerstone and small anvil.

of them show signs of use. Many seem to have been heated in fires and others to have been used as hammers or anvils. Round pebbles were also found in the graves but nothing there was discovered that might furnish a clue to their employment. Figure 2 in plate 87 shows one of these pebbles.

Most polished stone articles seem to have been reduced from crude forms by a picking process. Few implements resembling picks, perhaps, have been found. One crude implement, figure 3, plate 87, is of tough granite and seems to have been one of these picks. It is much battered and shows signs of long use. Notched implements, commonly called net sinkers, were not common, only about a dozen being found. They were of the ordinary type found everywhere throughout New York. Figures 4 and 6 in plate 87 show two net sinkers typical of all the rest found on the knoll. Hammerstones were everywhere numerous both on the surface and in the pits. Hammers were of three types, the ordinary round pebbles used as hammers, the ball-like hammers that are battered on almost every part of the surface and the common pitted hammerstones. Some of the larger pitted stones seem to have been alternately hammers and anvils and sometimes resemble small mortars. Figure 10 shows one of this type. Objects termed anvils are the flat stones plentiful everywhere in the village site. They exhibit signs of having been used as bases upon which other stones were worked. Anvils were generally pieces of hard shale or small boulders and most of them seem to have been used for long periods (see figure 8). The flat slabs of shale and sandstone anvils sometimes had shallow hollows on one side and seem to have been used for grinding purposes. It is highly probable that in that state of primitive culture when everything convenient must be utilized, one utensil served as many purposes as could be devised for it.

A number of smoothed and worked stones found in refuse pits and also in graves are thought to be potters' tools. One was found in a pit containing a large quantity of partly worked clay. One of these stones is shown in figure 9 in plate 87 and another in figure 10, plate 88. One interesting specimen of a massive stone implement is the large mortar found in pit 50. It weighs about 200 pounds and was found at one end of a stone-floored pit. It must have been occasionally turned over for both sides show signs of use though only one side was used as a mortar. Mullers or rounded pebbles



Types of celts, from

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Plate 88



Types of celts, from Ripley. One-half reduct

must have been used to crack and grind the corn or other substances. Long cylindrical pestles would not have served the purpose. Four small celtlike implements were found in refuse pits. These had been formed from natural water-washed pebbles the ends of which had been sharpened to an edge, this being the only work done to form the implement. It is hardly possible to state definitely for what purpose these miniature celts were used. Certainly they could not have sustained rough usage (see figures 9, 11, plate 88).

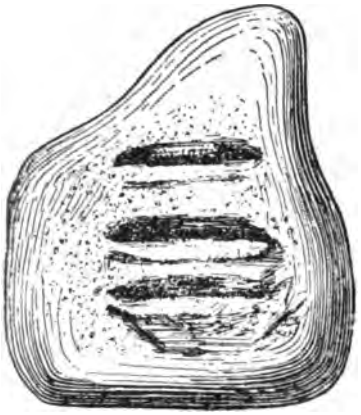


Fig. 40 Arrow shaft rubber and polisher. Size scale: 1–3

A grooved stone, sometimes called an arrow shaft smoother, is figured in text figure 40.

Polished Stone Objects

No polished stone articles of the type usually termed ceremonial were found in the course of the excavations, although a gorget was found on the hill to the east of the site, unless the very interesting polished bar of Portage shale found in grave 96 is to be called a ceremonial (see plate 88, figure 4). There is a bar of this description in the museum collection which came from Jefferson county and the writer secured another 15 inches long from Mayville, Chautauqua county. All these specimens have sharpened ends like celts, and for the want of a definite name the writer proposes the term "bar celt."[1] Thurston in his *Antiquities of Tennessee,* plate 16, figures an implement resembling a bar celt. He describes it as the " . . . . long delicate crescent-shaped 'implement' of highly polished syenite, represented in plate XV [author's collection], also probably belongs to the ceremonial class. It is 11½ inches long. Originally it was probably 12 inches as the point has been broken. It was found by Theodore Haslem in North Nashville (Tenn.)." Objects of this kind are probably rare and but few have been described. All three specimens in the state collection are flattened

[1] The writer has since examined another bar celt found by William T. Fenton of Conewango Valley.

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Plate 89



Types of chipped flint implements not arrow points. Figures
scrapers and 7 is a rude drill. See also text figure 41. All fr

on the bottoms and rounded over the back with gradually tapering ends.

The ordinary celts are of the usual type found everywhere in the Erie cultural area and in general throughout the Iroquoian. Most of the specimens are equilateral, there being none of the adz, "flat-bellied" or "turtle-backed" forms. The majority of celts were found in graves although a few are from refuse pits. Three entire celts and two broken celts were found in a "feast pit" previously described (pit 80). One small double-edged or "bitted" celt came from grave 92 which is shown in figure 13, plate 88.

Stone Tobacco Pipes

The stone pipes are perhaps the most interesting forms of polished stone articles. Those discovered exhibit many interesting features.

Two pipe bowls carved from sandstone are of interest (plate 90, figure 2, 3). Figure 2 is bell-shaped with notches cut around the edge and a cross cut in the rounded bottom of the bowl. In Joseph D. McGuire's *American Aboriginal Pipes and Smoking Customs,* contained in the National Museum Report of 1897, page 428, figure 52, is figured a pipe from Accotink, Va., very similar to this specimen. Of these pipes Doctor McGuire says:

> Among the bowl pipes of vaselike form they are found to vary from those which are as broad as they are long, specimens having a hight four times as great as their diameter. This type is usually made from steatite, or kindred stones, capable of resisting heat, though, as with most American pipes, there are numerous exceptions to the rule. One in the Smithsonian collection, of gray sandstone was found in a cave on Tar river, Yancy co., North Carolina, and another found in a kitchen heap in Kanawha county, West Virginia, which was made from a brown stone. Other specimens are known of this type made from partially decomposed limestone, feldspar, and even fossil coral. The writer is informed by the Rev. W. M. Beauchamp that this type is frequently encountered in Onondaga county, New York.
>
> Pipes of this urn-shaped type are found also along the headwaters of the St Lawrence, *on the south* shores of Lake Ontario and Lake Erie, and along the upper waters of the Ohio and its affluents, a typical specimen being from Accotink, Virginia, while yet other specimens in the United States National Museum collection are from New York, Pennsylvania, Ohio, West Virginia, Kentucky, Tennessee, Indiana and North Carolina.
>
> If the area of distribution of the urn-shaped pipe is compared with the tribal distribution first known to the whites, as it appears on Powell's linguistic map, it will be seen that this especial form of the bowl pipe is found in Iroquoian territory on the north, through the Algonquin on the south into the southern Iroquoians. It should be remembered that this area corresponds, reasonably, with the territory influenced by French trade before the advent

Plate 90



Stone pipes. 1, 2 and 3 are from the topsoil or general occupied layer; 4, 5, 6 and 7 are from graves.

of the English. The territory is also in the line of travel from the St Lawrence to the Ohio. The writer is unable to determine how far this urn-shaped type of pipe has been governed by European influences. Its contour is similar to pottery bowls from Tennessee, specimens of which are in the United States National Museum collection.

Figure 3, plate 90, is of an egg-shaped pipe bowl of the same material as the one just described. Around the middle of the bowl is a groove which meets at the stem hole. In Moorehead's *Prehistoric Implements,* page 334, is figured one of these pipes from the Ohio valley. Moorehead remarks that its peculiarity lies in the fact that it is grooved around the center. There is nothing in either of these pipes to suggest European influence as far as the writer can discover. The drilling and workmanship seem to have been done with stone implements entirely. Figure 4 is a pipe bowl cut from a hardened clay. The surface has weathered black but the underlying color is red. In form the pipe is claw or beaklike and is similar to other forms found in the Iroquoian area. The bowl hole is small comparatively and the stem hole large and conical as in the case with all the pipe bowls of the collection. This pipe is from grave 105 and was found with pot 471. A small pipe carved from the local shale imitating this form was found in an ash pit, perhaps a grave fire, near this grave. The pipe is pictured in figure 1, plate 90. A small stone pipe with a short neck into which a reed stem was evidently designed to fit is shown in plate 90, figure 7. This pipe is of about the same material as the large claw form pipe and has two parallel lines incised on the underside of the neck. It was found in grave 101, pit 141, and lay on the arm of a male. The pipe represented by figure 6, plate 90, is the only stone pipe of the stemmed type found. It is carved from a species of serpentine and is smoothed and polished. In the process of drilling the stem the drill penetrated too near the base of the bowl and there is a small hole to be observed in the specimen. The shape of the opening suggests that the bowl had been rubbed down after the stem hole had been drilled and that this hole had been encountered then. The form of the stem hole seems to indicate the use of a metal drill.

Perhaps the most interesting of the pipes is the one shown in plate 90, figure 5. It is clearly the effigy of some animal, probably some mythical monster. Placed face down it appears to be a grazing animal. In this position the hump formed by the bowl suggests a buffalo but the large bulbous tail and the shape of the head do not point to such an animal. The material is rather puzzling. In color it is a bluish white and it appears to be some species of talc or steatite but a test for hardness disproves this. Mr D. H. Newland.

Assistant State Geologist, made an analysis and pronounced it to be an Ohio kaolin. The broken granular surface of the pipe near the bowl suggests that it had been molded from a rather stiff clay and the roughened top of the head suggests that a portion has been broken off and that an attempt had been made to smooth it over by rubbing. It has there the appearance of baked pottery, the surface of which has been rubbed down. The glazed surface, however, has not been produced and this suggests that the pipe has been hardened in the fire. Yet while the pipe from these appearances seems to be kaolin it seems remarkable that instead of having the bowl and stem hole molded, as is customary with clay pipes, that these holes should have been gouged and drilled out, as they manifestly were. The hind leg on the side visible in the photograph is incised but on the reverse side the three lines have every appearance of having been molded as if in plastic clay. It may be that the clay was found in a semihardened condition and that it was formed into the pipe by both processes and afterward hardened by firing. The pipe, while the effigy is unusual, does not differ in general form from other effigy pipes found in the region. There is nothing in the workmanship to indicate the use of European tools or influence [see description of grave 92 and plate 85.]

One of the interesting features about these pipes is that the bowl capacities are small in comparison with modern European pipes. Probably less tobacco could be contained in one than is held in a modern factory cigarette. The bowls of the clay pipes were a little larger. No tobacco ashes were found in any of the stone pipes.

Objects of Chipped Flint

Objects of flint were numerous, especially in graves where complete outfits for their manufacture were found in several instances. Complete flint articles were not numerous on the surface although there was an abundance of chips and broken blades. The ash pits contained numbers but the graves the most. The lack of finished points on the surface may be due to the fact that each year as the ground was plowed the arrow points were picked up. The older inhabitants say that bushels of arrows and "skinning stones" have been carried off. It is probable that most of the durable objects left on the surface when the site was deserted by its aboriginal inhabitants have been removed by the white tillers of the soil who followed them at a later period and whose curiosity was aroused by the strange artifacts which were turned up by their plows. At any rate very little was found except below plow depth.

Of the points that might be safely termed arrowheads, there were ut two that had notched shoulders. With these exceptions all the rrowheads were triangular. The workmanship was good and most f the points were thin and evenly worked. The material in general vas gray flint or chert but some points were found made from yellow jasper. Most of the points found on the eastern slope of the knoll were of this material.



Fig. 41 Spear or knife of ranslucent chalcedony. The nly form of this implement ound in the site.

Of the flint blades, not arrow points, only two had notched shoulders. One of these was a beautifully wrought blade, a spear or a knife, of white chalcedony. It is pictured in figure 41. There were several well-shaped oval blades and a few of the so-called "leaf shape." Scrapers were fairly common, drills rather rare and spears rarer still. There are a number of forms that may safely be called knives. Plate 89 illustrates the range of forms of the larger flints not arrowheads.

Triangular arrow points are commonly called "war points" and notched and barbed points, "hunting points." It does not necessarily follow, however, that these terms are correct, although uite popularly held. The Ripley Erie as well as those of other sites vere great hunters, as is manifest from the great quantities of nimal bones found in the refuse pits, and yet at Ripley only two o-called "hunting points" were discovered. The great majority of rojectile points were of the triangular type, and these were found n the ash pits among animal bones as well as in graves with the ones of warriors and women. It would appear therefore that the iangular points were used for hunting as well as war. Sites of re-Erian occupancy in Chautauqua county, and elsewhere in New ork, yield only the barbed or shouldered "hunting point," few triangular arrowheads being found. Yet this fact does not point out people who knew only of hunting and nothing of war. Specific erms defining the use of such implements are, therefore, to be voided. They are more accurately described by their forms as, riangular, notched etc.

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Earthenware
Pottery Vessels

All the entire or nearly entire pottery vessels, save two, w
found in graves. Most of them exhibited signs of prolonged
A few seemed to have been especially made for funeral urns
some had been evidently molded in great haste and poorly tempe
and baked. Such pots were in every instance broken and
potsherds were soft and flaky, not hard and gritty like good pott

The material of which the pots were molded seems to have b
the local Erie clay found everywhere in the region overlying
shale beds. The tempering material in all the specimens discove
is invariably pulverized stone, quartz or granitic rock. In no insta
is shell to be found. Most of the pots are of a salmon red co
varying from a sooty red to a light orange. The majority are stai
by smoke and carbonized grease. This charred grease is especi
noticeable around the inside of the rim where the incrustations
sometimes 5 millimeters thick. In thickness the pottery varies f
2 millimeters to 2 centimeters in some fragments. In capacity
vessels range from 5 cubic centimeters in the toy forms found
grave 51, pit 96, to 5 quarts,— 4700 cubic centimeters.

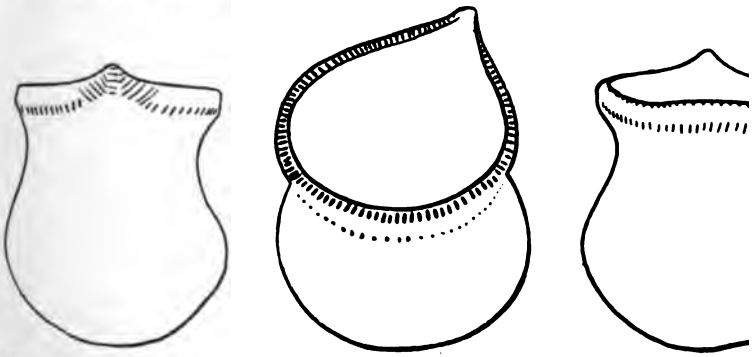
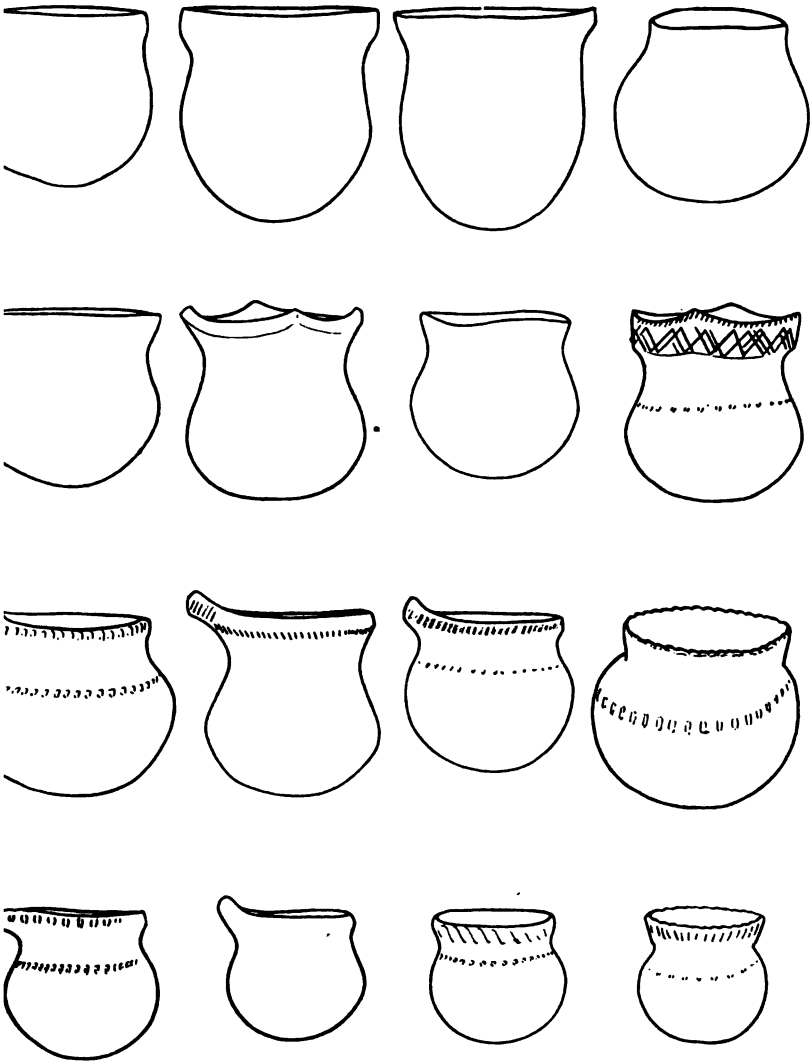


Fig. 42 Outline drawing showing three views of the Ripley pitcher nose

The general type of the vessels is Iroquoian, but as has been
where stated they differ in many respects from the central
York specimens of the middle seventeenth century as well as f
Erie vessels of that period.

A large percentage of the pots have one raised point that va
from a small knob to a well-developed pitcherlike nose. Pots of
type are found in Ontario and Jefferson counties. The form
one of these pots is shown in text figure 42 which gives the shap
different positions. Another characteristic of the pots from

Plate 91



ig. 134 Outline drawings showing the range of pot forms found at Ripley.

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Cushing's
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Fig.

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pot found in a grave
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Iroquoian forms found
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site is the row of dots that encircles the pot where the belly meets the neck. Cushing's theory that pots with square tops and line decorations about the rim were modeled after bark baskets appears strengthened by some of the forms which had not only decorated square tops but had the stitching imitated by the dots around the neck, as appears on the bark baskets to which Cushing referred.

Pottery clay in masses, tempered and partly worked, was found in a number of the ash pits. Some of these partially worked masses of clay even yet show the imprints of the potter's fingers. One fragment of a coil was found in an ash pit where it had become hardened and preserved. Several crude partly formed pipe bowls and pot bottoms were found, possibly the work of children. Most of the pots have smooth surfaces although many were found marked with a cord-wrapped paddle. Several smoothed paddlelike stones were found in pits containing clay in masses, which are thought to be potters' paddles used for working over the surfaces of pots. All have rounded ends and at least one square side as if to form a blunt scraping edge. The serrated rib illustrated by text figure 43 may have been used to roughen the surfaces of partly formed vessels to facilitate the process of shaping the wall which was afterwards smoothed.



Fig. 43 Serrated rib

No entire pots were found with any trace of color decoration. One sherd was found, however, which has two parallel bands of brown running over a background of yellowish red. Whether this is simply an accident or intentional is difficult to determine, as the sherd is small. The lower band is well defined and seems to be inlaid into the pottery (figure 44). One broken pot found in a grave had an ear like some of the Ohio forms. These two potsherds were the only departures from the usual Iroquoian forms found in the site and suggest contact with other stocks.



Fig. 44 Sherd

Of equal interest with the pottery vessels are the earthenware pipes, all of which were found in graves. More than a dozen frag-

ments, however, were found in ash and refuse pits. The clay pipes are all Iroquoian in form and decoration and are similar to central New York Iroquois pipes of the early part of the seventeenth century. All the pipes are gracefully made and reveal an artistic hand.

Figure 1 in plate 95 shows the pipe found in grave 14. The bold incised lines that form the decoration are of exceptional interest and are a departure from other forms. The nipplelike stem seems to have been designed as a support over which a wooden stem was fitted, rather than as a mouthpiece. The pipe contained charred tobacco which has been carefully preserved intact in the bowl. The writer has never seen a pipe of this kind in any collection nor illustrated in any work on archeology, and the specimen is probably a rare one if not entirely unique.

The long square-topped pipe shown in figure 2 of plate 95 is the so-called "Huronian" form. It is made of the ordinary clay from the vicinity but has become stained a dark brown. In texture this pipe is perhaps the best example of pottery found in the site. It is very hard and fine grained.

Two views of the two-faced pipe found in grave 20, pit 44, are shown in plate 95, figures 3 and 4. The front view was taken just after the pipe was removed from the grave and was yet covered with particles of sand, as the picture shows. The side view gives a much better idea of the object and shows the two faces, both of which are remarkably alike, the face away from the smoker, however, being more perfect in workmanship. As is the case with all the earthen pipes shown in the plate, this pipe contained charred tobacco.

The trumpet-shaped pipe shown in plate 95, figure 5, came from grave 86 and was found with pot F446 (plate 93, figure 6), and two celts. In comparison with the other stemmed pipes the stem is shorter but does not seem to have ever been broken.

The wide flaring platform-topped pipe shown in plate 95, figure 6, is a modification of the trumpet form. The top or platform is flat and quite perfectly circular. This type is common almost everywhere in the Iroquoian region but particularly so in the Erie region. Many of this type are found in prehistoric Onondaga sites in Jefferson county.

Two interesting pipe bowls in the form of animal heads were found in refuse pits. One is plainly a bear's head and is of polished black clay. The other is of ordinary red clay. It is not easy to

Plate 92





Pots with raised rim points. From graves at Ripley.

decide just what is meant to be represented by the effigy. Some who have examined it have thought it intended for a fox.

Bone

Articles of bone and antler were particularly numerous and varied. Except for about ten specimens all came from ash pits.

The great abundance of awls points out their extensive use. The awls were of the usual forms, flat, cylindrical, tubular, handled, and those having a joint end. There were also awls made from small splinters. The principal forms are shown in plate 98.

Bone beads were found in every ash pit and varied from crudely broken sections of bird and small mammal bones to well-shaped and highly polished cylinders. That so many should have been thrown in among the refuse seems rather remarkable and almost seems to indicate something more than accident. These beads ranged from three thirty-seconds of an inch in diameter to five-eighths of an inch although the majority were about one-quarter of an inch in diameter. One form (see plate 97, figure 5) has the appearance of a handle.

Perforated elk, wolf and bear teeth were found in refuse pits. Perforated bear tusks were found previously by local collectors of Indian relics. Figure 1 in plate 96 is that of a bear's molar. It is a beautiful specimen and highly polished. There were several perforated elk teeth but none with unbroken perforations. Each had been broken. A perforated turtle shell fragment is shown in figure 11, plate 96, and came from an ash pit. Other broken perforated carapaces were found in graves. The small spatulate implement shown in plate 96, figure 12, is nicely formed and polished. Perhaps it was a pottery marker. Two polished pieces of bone smoothed on all sides were found in refuse pits. The one shown by figure 13 is grooved on either side. A bone knife blade, the point of which is broken, is shown in figure 14. Raccoon penis bones were found in several pits. All are smoothed and show signs of use, perhaps as hooks for coarse weaving. Figure 21 is that of a long flat bone implement resembling a shuttle. It is a fine specimen, being nicely smoothed and polished. The notch at one end is smoothly worked and shows no signs of being a broken eye. Figure 24 is probably that of a broken bone needle. Needles were rare in the site. Deer phalanges were found in abundance and most of them are worked to some degree (see plate 96, figure 5, 6). Number were flattened on one side and some were worked down to cones with a perforation at



Fig.

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one end, the end nearest the tip. These cones resemble the cup used in the cup and awl game common among the early Hurons an are probably parts of such apparatus (plate 96, figure 4, 8).

Beaver teeth seem to have been used for scraping or cutting. Sev eral specimens are worked smooth at the base (see plate 97, figur 1-3). One has a slot running from the edge well toward the to

One very interesting specimen is that of a bone fishhook in proces If finished it would have been a small delicate hook. No sign of barb appears. The specimen resembles some of those figured b Prof. F. W. Putnam in *The Way Bone Fish Hooks Were Made i the Little Miami Valley.*

A pendantlike tube is shown in plate 97, figure 9. Both end show the marks of cutting as do both of the pendants of deer's jaw shown in the next figures. Plate 97, figure 10, is notched an perforated lengthwise.

It is perhaps not customary to rank deer jaws as implement Nevertheless the Seneca up to within the last ten years have use them when they could obtain them, for scraping corn from the gree cob. The sharp teeth were raked over the kernels to break and cu the hulls and then the hold on the jaw changed and the milk an meat scraped out with the sharp edge that is nearest the chin. Th writer secured one of these jaws in 1903 for the American Museu of Natural History. It is entirely probable that the Erie used dee jaws for the same purpose, as they were Iroquois and closely relate to the Seneca. The Seneca have a name for the jaw when used a an implement of this kind, a name for the process, and called th corn so prepared " already chewed." Figure 45 is a drawing of on of these " jaw corn scrapers."



Fig. 45 Deer jaw scraper

Antler

Antler objects were fairly numerous, though not of great variet Those found in refuse pits were well preserved but those fro graves were decayed and crumbling.



Types of the smaller pots from Ripley



Fig. 1
Fig. 2







pots from Ripley

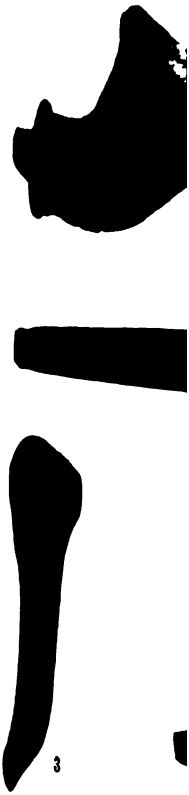
Plate 94





Fig. 1 Pot from grave 1, pit 4
Fig. 2 Restored pot from burial LXXXI

The antler objects from the site, include flaking tools, punchlike implements, sometimes called pitching tools, chisellike implements, picklike prongs of antler, arrowheads, hoes or digging implements and one antler ball. There were several pieces of antler showing marks of cutting and other working. The large trowellike object shown in plate 99, figure 1, is probably an antler hoe or spade. The edge is worn and smoothed, evidently by use in the earth. Two other hoes are shown in the same plate (figure 5, 10). The larger hoe seems to have had one side cut as if by a metal knife. The "hoes" are all of moose horn. A small chisellike implement is shown in plate 95, figure 2. It is worn and polished and the cutting edge is sharp for such material. A larger chisel or pick is shown in plate 99, figure 4, and seems to have the handle whittled into shape by a metal knife. Punchlike objects were fairly common and seem to have been parts of an arrow-maker's outfit. Indeed they are commonly called "pitching tools" and experiment shows that they are useful in making the long body chips which must sometimes be made to form a flint blade properly. These tools are of two types. Plate 99, figure 9, shows one which has a head. Two antler arrowheads were found. Plate 99, figure 8, represents the better one. It is well shaped and polished but the hole for the shaft is not deep. One flattened ball was found and is similar to the game balls used now by the Iroquois and called "deer horn buttons" (see plate 99, figure 6). Chunks or pieces of worked antler were frequent. One shown in figure 7, is that of an antler base from which the upper part has been cut with a metal knife.



Shell Articles

Among the interesting classes of articles are those of shell. The very interesting necklace of shell shown in plate 100 is the best specimen of its art found at the Ripley site. It came from grave 93, pit 133, and was found about the neck of the skeleton. The better preserved gorget was found in the bend formed by the curve of the front portion of the lower jaw. The necklace is made of discoidal shell beads beautifully made. They are quite uniform and the perforations are perfectly centered. In specimens which have not weathered, the edges are even. The two gorgets and the long pendant from this necklace are shown in plate 101, as is a series



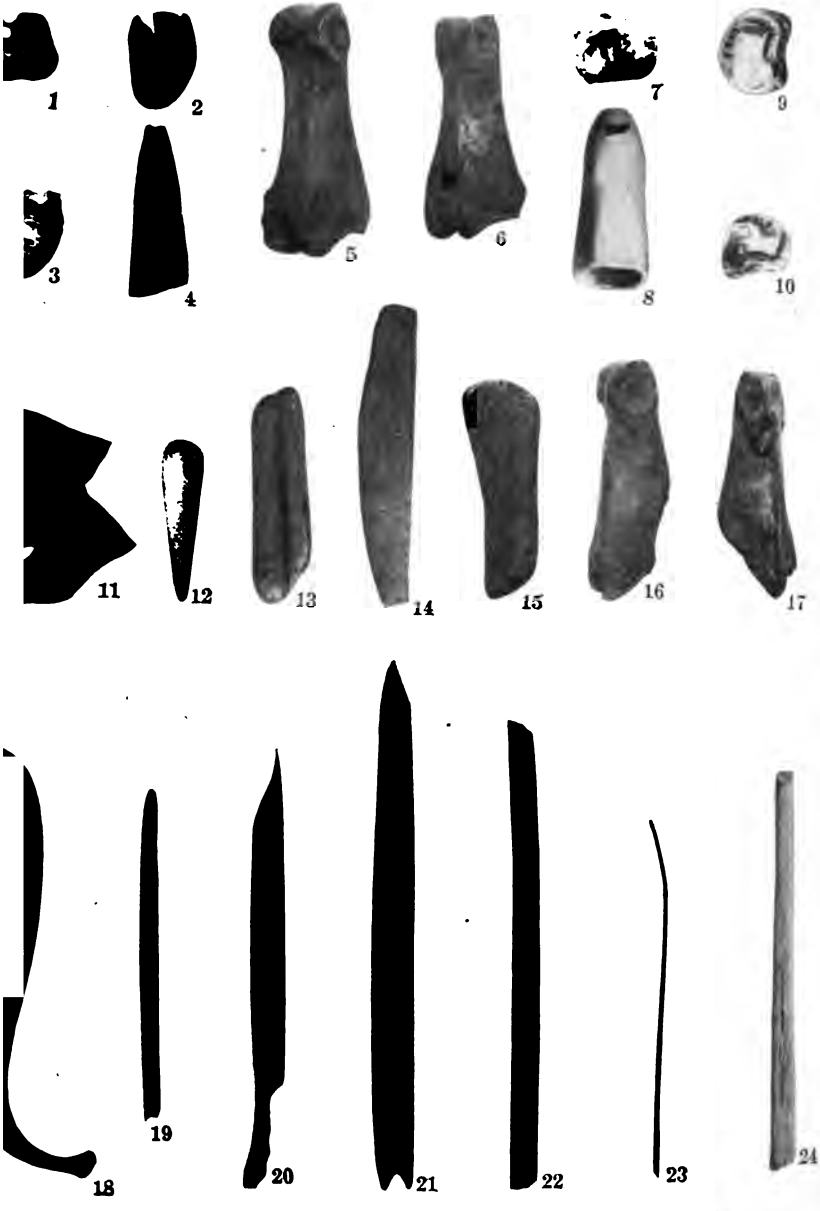
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Plate 95

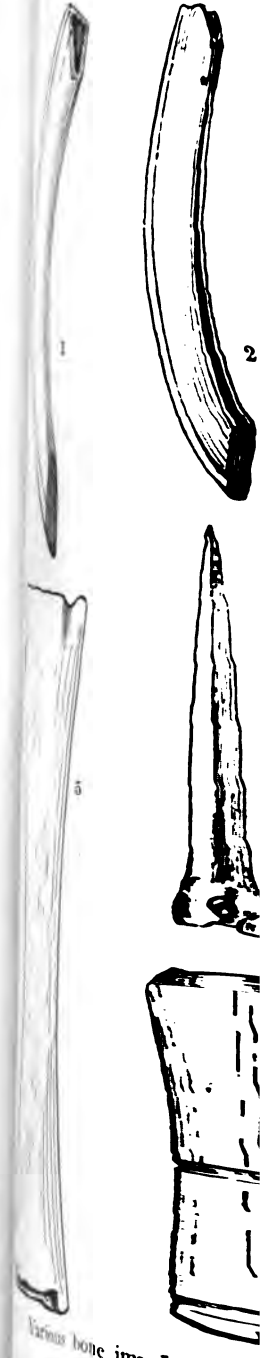


Pottery pipes from graves. 1 is a massive clay pipe bowl decorated with deeply incised lines and has a stem that might serve either for a mouthpiece or as a nipple over which a stem of wood might be inserted. 2 is from grave XXV and is the so-called Huronian type. 3 and 4 are two views of the two faced pipe from grave XX. 5 is a trumpet pipe from grave XX. 6 is a flat round topped trumpet pipe from grave LXXV. All these pipes contain charred tobacco as when found. All from Ripley.

Plate 96



Various bone implements from refuse and fire pits at Ripley



Various bone implem























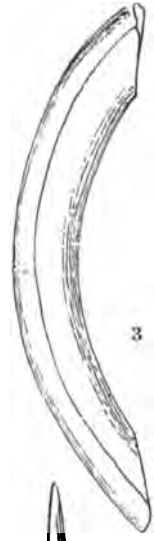
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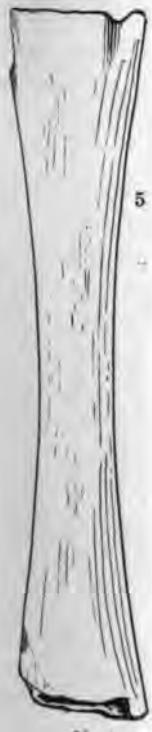
efuse and fire pits at Ripley























Various bone implements from refuse and fire pits at Ripley

of discoidal beads illustrating the stages of disintegration. A perforated Unio shell was found in pit 46 and a shell bead of the older form came from pit 3 (see plate 101, figure 5).

Copper Articles and Objects Preserved by Copper

With the exception of one specimen, all copper articles came from graves. An analysis of these articles by the mineralogist, H. P. Whitlock, indicated that they were all of European copper. The two arm bands contained traces of zinc.

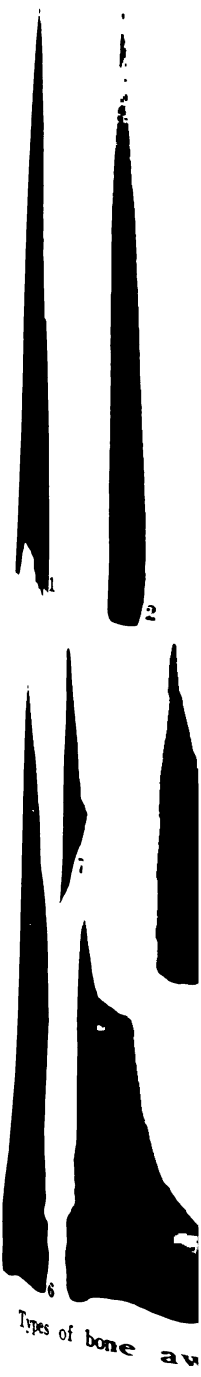
Most of the copper articles came from grave 51, pit 96, and a description of them as they were found will be found under that head. The two bracelets which encircled the arm of the skeleton are shown in plate 102, figures 1, 2. These bands yet retain upon their corroded surfaces the impressions of the skin of the arm against which they rested, although the pictures do not show them well. Finger prints are noticeable on several of the rings and one has the tactile impression on the inner side. Figures 5 and 10 of plate 102 are of two rings which have these impressions upon them. These rings are of the common rolled type made from bands of sheet copper. The arm band fragment shown by plate 102, figure 4, is a fine specimen of rolled copper work.

In graves where copper was present the animal or vegetable matter in immediate contact was preserved by the copper salts. The substances so preserved include wood, bark, herbs, deer hair, deerskin, thongs, human skin, flesh, bone, nails, hair and scalp fragments.

Figure 3 in plate 102 is that of a rolled copper bead which yet contains the skin thong. Pieces of bark and deerskin massed together are pictured in plate 102, figure 7. The shreds of bark are plainly visible but the skin does not show well. In the same plate figure 11 is a piece of wood preserved by the salts of copper from the ring that encircles the opening. The form of the object suggests a false-face eye. Plate 102, figure 9, is that of a mass of vegetable matter, possibly some herb or tobacco.

Iron

But few pieces of iron were found. Of those discovered in graves or ash pits, none bore the semblance of finished or complete utensils. In a few graves and in one ash pit short rectangular bars



Types of bone av

Plate 98



Types of bone awls from ash and refuse pits at Ripley

ere found and with them chunks of flint, probably parts of fire-aking apparatus. In grave 93 a portion of a small ax, adz or ıisel edge was found. It had been broken at a perforation.

Carbonized Substances

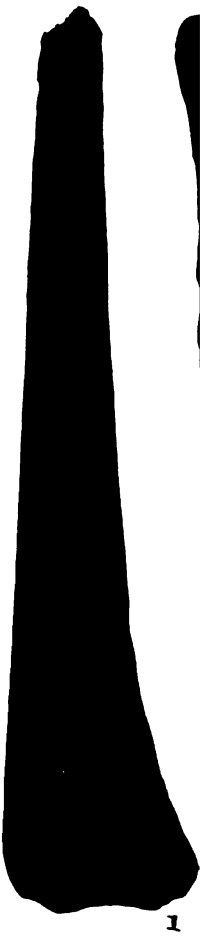
Vegetable matter preserved by carbonization was found in nearly l the ash pits but so crushed as to be unrecognizable. Charred ood and bark were found in quantities in most of the pits and the eces varied in size from small particles to chunks five inches in ngth and an inch or two in diameter. Charred corn in small ıantities was found in several refuse pits and seems to have been e ordinary variety found in most Iroquoian sites. A few beans, uash seeds, hickory nuts, butternuts and plum stone in a charred ndition complete the list of the foods preserved by carbonization. ıarred corn was found in several of the graves and in one grave e decayed handle of a celt was found. Charred bark and wood ere frequent in the graves and fragments of what seemed a bark sh were found in one grave. A long wooden stem, probably a pipe :m was found in an ash pit and a few minutes afterward a ıimsy visitor stepped upon the box in which it was temporarily aced and crushed most of it. A small section, however, remained.

Pigments

The pigments were ochers, graphite and bitumen or asphaltum. ıarcoal may also be included. Quantities of red ocher were found some of the graves and some skeletons lay in deposits of it. In her graves the ocher was in little deposits as if it had been closed in a bag that had afterward decayed.

Articles Found in Vicinity

Objects which are found in the vicinity of Ripley but which were t found on the site are the following: Of the older occupations; ıges, grooved axes, mica plates, inscribed stones, monitor pipes, nner stones, bird shaped stones, gorgets, tubular shell beads, etc.; l of the later occupations; notched and shouldered arrow points d spears, shell beads in numbers, wampum, iron tomahawks, lead jects, copper or brass arrow points, glass beads, etc.



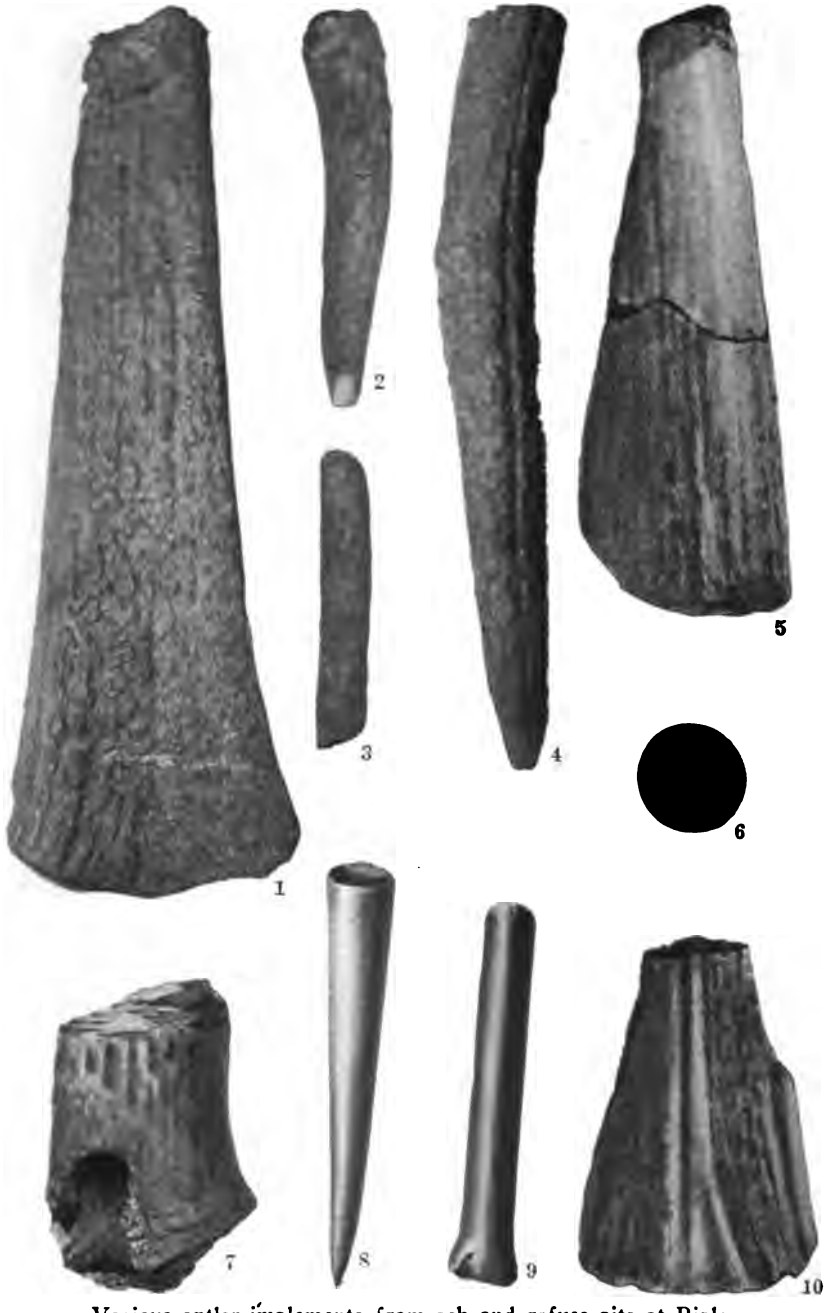
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Various antler imp

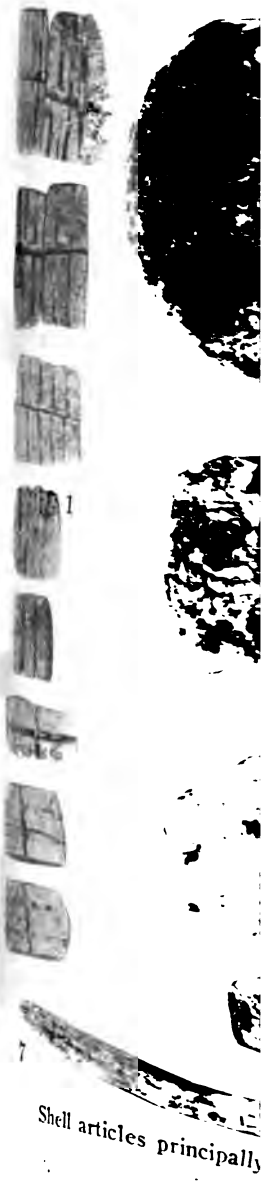
Plate 99



Various antler implements from ash and refuse pits at Ripley



Necklace of shell disks found about the neck of a female skeleton, grave
t 133, trench 18, at 20 on the west side. Restrung, bead for bead, as found
Ripley.

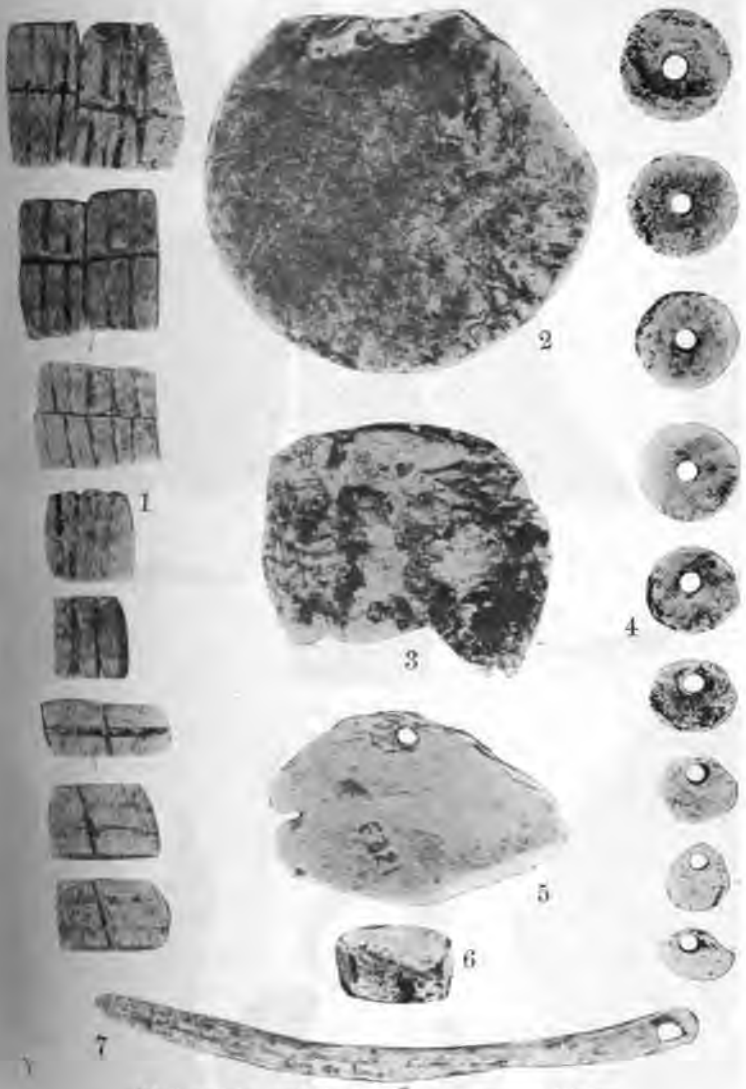


Shell articles principally



neck of a female skeleton, grave
Restrung, bead for bead, as found

Plate 101



Shell articles principally from graves at Ripley

Plate 102



Brass and copper articles and articles preserved by contact with copper.

SON AN ANCIENT S
IN CHAUTAU

BY M. RAYMOND

ile the work at Double Wa
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near Sheridan, Chautauqua
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1. Report, U. S. Bureau of E
2. Occupation of New York,

NOTES ON AN ANCIENT SEMICIRCULAR EARTHWORK IN CHAUTAUQUA COUNTY

BY M. RAYMOND HARRINGTON

While the work at Double Wall Fort was in progress during the summer of 1904, occasional exploring trips were taken about the country for the purpose of discovering new sites. On one of these excursions I succeeded in locating the site of a semicircular earthwork near Sheridan, Chautauqua county, and secured enough material to warrant the addition of a few notes to the accounts already published concerning it.[1]

The site is situated on land formerly belonging to Mr J. G. Gould, but now the property of a Mr Deland. Although now practically destroyed, the work could be traced with the help of Mr Gould, who remembers it perfectly in its entirety, and its outlines followed. It formed a nearly complete circle, with a low ridge, probably natural, filling up a gap on its south side. The road from Forestville to Fredonia crosses the work not far from this ridge. The fort must have occupied in all 2 or 3 acres and was situated on the crest of a very low sloping bluff or gravel above a wooded swamp. The gate was on the north side, toward the bluff; the ditch was, as usual, outside the wall. The Bureau of Ethnology account is inaccurate in stating that the work lies "on a bluff above Walnut creek," for there is no creek whatever in the swamp, merely a very small brook, and Walnut creek is fully 2 miles away. Other errors appear in Beauchamp's account: his authorities have so disagreed that he has this one site listed under three different numbers (10, 11 and 12), with estimates of size running anywhere from 13⅓ acres according to Cheney, to 3 acres according to Reynolds. Neither of the books mention the low mound near the center, almost obliterated, which was pointed out to me but which I could not disturb on account of the crops.

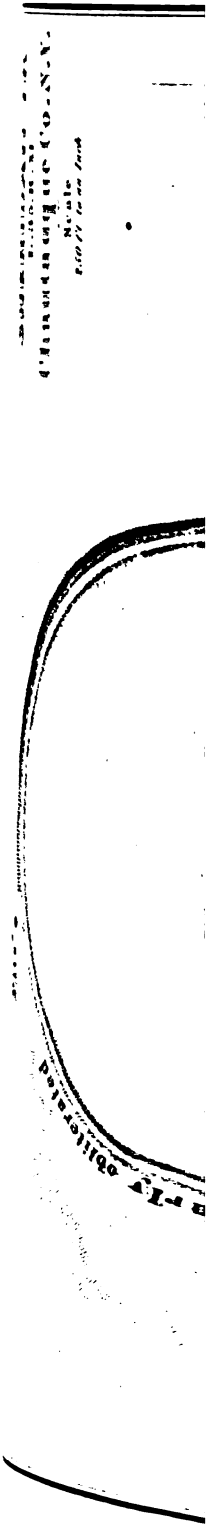
It is difficult to understand the reasons which led the ancient people to erect this fortified village so far inland, even from a creek. The position is not commanding, nor has it any advantages as far as I can see, except that there is a small spring and brook in the nearby swamp. Perhaps they wished a hidden village, out of the usual line of travel, and picked out this place for that purpose. The exact spot may have been determined by conditions of forest growth — natural clearings and the like, of which we today know nothing.

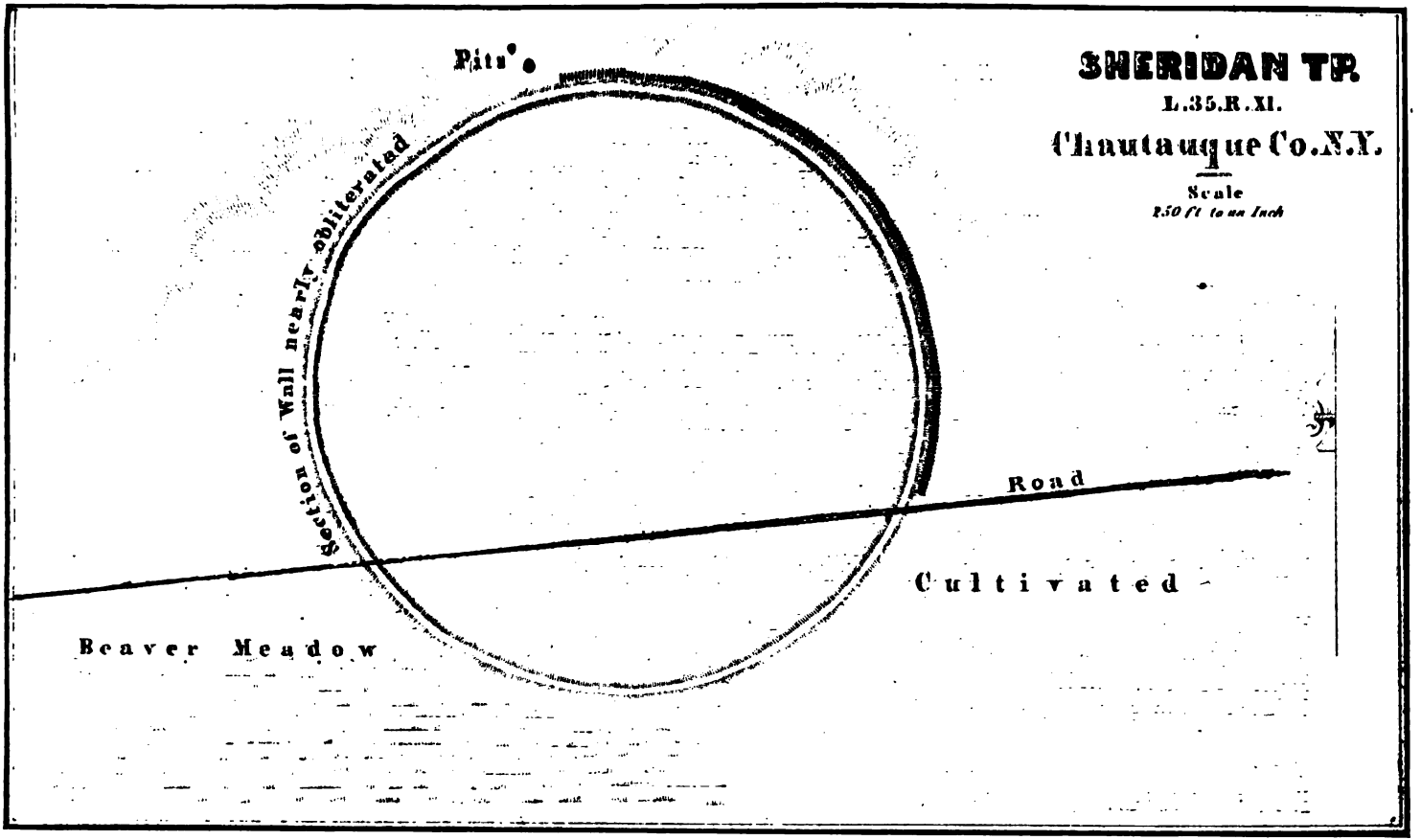
[1] Annual Report, U. S. Bureau of Ethnology, v. 12, p. 511; Beauchamp, Aboriginal Occupation of New York, p. 43.

Both Beauchamp and the Ethnology Bureau reports speak of pits in and near the fort, and the latter says they contained nothing but fine gravel. I saw none of these, but within the fort postholing brought to light several pits. Pit 1 was 38 inches deep and 4 feet in diameter with a dense charred layer at the bottom. Here were potsherds from a number of jars of different sizes, two worked stones resembling hematite, and some chipped flints. Pit 2, nearby, was 31 inches deep and contained a few potsherds, together with mammal and fish bones and charred corn. Pit 3 was irregular in shape and about 2 feet deep with a very black layer at the bottom containing much charred corn and cobs. There were a few potsherds in this pit.

Among the articles that have been found here in past years by local collectors and that were picked up by members of the expedition during our two days' stay are arrow points, both triangular and stemmed, broad shallow stone mortars, pestles, celts and celt-adzes, pitted stones, hammerstones, a notched hammer, a *rubbed*, not chipped, slate point, potsherds and several terra-cotta pipes decorated with incised chevron patterns.

The pottery found here is unusually interesting on account of its wide variation from the type found at Silverheels site, Double Wall Fort and later at the village and burial site at Ripley. The pottery common to these latter localities is characteristically Iroquoian, the jars having globular bodies with round bottoms and constricted necks, above which there is a projecting rim, the edge often rising in one or more peaks. This rim is usually decorated with incised lines, especially at the peaks. The general surface as a rule is smooth without "fabric" marking and with hardly any trace of the modeling tool. But at the Sheridan site it was very different. Here the pottery had no raised rim, little or no constricted neck, was generally "fabric" marked and seldom showed any attempt at decoration. The pipes also, as nearly as could be gathered from description, were also more Algonkian than Iroquoian in character. These facts, together with the occurrence of both shapes of arrowheads and the slate point, led me to consider whether the site might not be Algonkian. I even took the abundant flat stone mortars so common in the New York Algonkian region as an indication of this; but these were afterward found in numbers on the characteristic Iroquoian site at Ripley. On the other hand, the presence of celt-axes to the exclusion of grooved axes, and the use of the ossuary mentioned in both books cited, seem to connect the band with Iroquoian stock in spite of the pottery. The site is probably prehistoric;





The Sheridan earth ring or crescent.

nothing indicating otherwise has been found. Hence it may be of very early Erie origin, or perhaps was occupied by some different and forgotten band of obscure connections. Circumstances prevented a thorough examination of the site, although permission to excavate was secured for part of it. Perhaps it might be difficult to obtain a large collection even if the ground were thoroughly gone over, but from the scientific standpoint it would pay to try. The place deserves at least a fuller exploration for the purpose of discovering additional facts concerning the life and relationship of its mysterious and forgotten inhabitants.[1]

THE LE ROY IROQUOIAN EARTHWORK, GENESEE COUNTY

ACCOUNT BY E. G. SQUIER[2]

WITH NOTES BY H. C. FOLLETT

The earthwork on the hill near Le Roy occupies a portion of an elevated plain or tableland, nearly surrounded by deep ravines formed by Allen creek and Fordham brook, which effect a junction at this point. These streams have worn their beds through the various strata of lime and sandstone to the depth of from 70 to 100 feet, leaving abrupt banks difficult of ascent. These natural features are best illustrated by the sketch map which precludes the necessity for a minute description of the geographical features.

The peninsular hill measures about 1300 feet from north to south, by 2000 feet at its broadest part, and 1000 feet across at the neck connecting it with the general table. Positions similar to this were often selected by the aborigines for defensive purposes, but in such cases have usually an embankment and trench extending across the isthmus.

In this instance, however, the only trace of art is an embankment and ditch, about 1500 feet in length, and running east and west

[1] It is difficult to identify some Chautauqua county sites because of the similarity of the pottery to cord-marked Algonkian forms. An examination of this site, however, seems to stamp it as Iroquoian of the transitional Chautauqua period. The pottery is similar to cord-marked, flaring lipped Iroquoian forms found at Burning Spring, Ripley, Westfield, and other places and is quite like the pottery found at Madisonville, Ohio. It may be that these early sites in Chautauqua county are proto-Iroquoian, or that they mark, as we have suggested, the transitional stage in Iroquoian pottery. A. C. P.

[2] Aboriginal Monuments of New York. Smithsonian Contribution to Knowledge, v. 2, 1851, p. 48.

across the broadest part of the peninsula, and not very far back from the edge of the ravine. The part which is laid down in the plan is said to be very distinct, the embankment being between 3 and 4 feet high and the ditch of corresponding depth. The western extremity of the line curves gently outward and extends some distance down the bank, which is at this point less abrupt than elsewhere. It is said that formerly trenches existed on the course indicated by dotted lines on the plan, but the statement is not now confirmed by any remaining traces.

A number of skeletons have been found here, together with many fragments of pottery. There have been also discovered some heaps of small stones, which have been supposed to be the missiles of the ancient occupants of the hill, thus collected to be used in case of attack. Various relics of art, as pipes, beads, stone hatchets and arrowheads, have been disclosed here by the operations of agriculture. One of the pipes composed of baked clay is now in the possession of the Rev. C. Dewey of Rochester. The material is very fine and the workmanship good, so good indeed as to induce some doubt as to its aboriginal origin. Another pipe carved from granular limestone was found here, as were also a number of beads, long and coarse, made of clay and burned.

According to Mr Dewey, "the trench was estimated by early observers at from 8 to 10 feet deep, and as many wide; the earth in making it had been thrown either way but much of it inward. The road formerly crossed it by a bridge. When first known forest trees were standing in the trench and outside of it. In size and growth they correspond to the forest surrounding there. Prostrate upon the ground were numerous trunks of the heart-wood of the black cherry trees of large size, which it is conjectured were the remains of a more antique forest, preceding the growth of beech and maple. They were in such a state of soundness as to be employed for timber by the early settlers.

"From all that remains of this work, it is impossible to conjecture for what purpose it was constructed. Indeed it bears so few evidences of design that we are led to distrust its artificial origin — a distrust which is strengthened by the circumstances that in a number of instances elevations and depressions bearing some degree of regularity, but result from the fissures in the substratum rock or other natural causes, have been mistaken for works of art. The fact that the trench in this instance has a course so nearly parallel to the ravine, is also a suspicious circumstance. The spot was not

visited by the author (Squier) but he is authorized in saying that Professor Dewey, who gave the first and most complete account of the works, is now inclined to the opinion that it may be the result of natural causes."

In 1900 Mr Mosley, of Bergen, made burial excavations on this site and states he removed about fifteen skeletons located on the south side of the apple orchard of Mr Knight. He states that articles with the skeletons were very rare.

A double-faced pipe, probably one of the best of its material in the State, now in the possession of the State Museum, is said to have been found on this site. This pipe is illustrated in the State Museum Bulletin, 22.

In the spring of 1915 excavations were made by me in refuse located on the slope and top of the bank of north ravine near the west end. The refuse is shallow and extends back from the edge of the bank 10 or 15 feet varying in depth from 2 to 18 inches. Much charcoal is encountered but very few bones such as are usual in refuse of this character charred corn is plentiful and occasionally a few beans. Bone implements, such as made from deer antlers. and an occasional bone awl and potsherds are plentiful. This end of the plot bears evidence of much previous digging which may account for the rarity of specimens.

During the summer of 1915 the so-called trench or ditch which is plainly visible about half way down the slope was excavated for several feet and is without question of natural construction. It was probably 5 feet deep at this point and had been filled with refuse about 2 feet and afterward covered with field stones, probably since cultivation by the whites. This refuse bore evidence of much fire and the consumption of nearly everything which had been deposited there, except potsherds which are numerous and show some fine work of art in construction. Portions of two or three human skeletons were encountered, perhaps evidence of cannibalism.

In the village site and on the south side of the peninsula several pits were discovered about 3 feet deep, containing great quantities of ashes and few fragments of animal bone. One of these pits yielded half of a human skull (which had been broken on one side), a hammerstone and part of a celt. I presume these are the pits which have been described to me by various collectors as pits "where pottery was made."

I would judge from the refuse that this was a very old and long inhabited site. Tests made on the east side of the road and along the bank show shallow traces of refuse which might have been

extensive in early days as the bank has been disturbed more or less for several years, and is so steep that it could be easily washed down and destroyed. Arrow points have been found on the flat land on the north side.

THE SHELBY EARTHWORKS

BY FRANK H. CUSHING, MEDINA, N. Y.

In the town of Shelby, Orleans county, about 3 miles southwest from the village of Medina, are the remains of one of the most interesting ancient earthworks in the State.[1] This work is situated at the summit of a slight and not abrupt elevation. It consists of two mural embankments, which are now about 2 feet in height, parallel, and 12 feet distant from each other. They describe almost an exact circle, having a diameter of 430 feet and an area of 3⅓ acres. Two fences upon original " section lines," one running north and south, the other east and west, divide this inclosure into four nearly equal parts or quadrants. Those portions of the work included in the northeastern and southwestern quadrants have for many years been under cultivation, and the embankments are nearly obliterated. The northwestern and southeastern portions are still covered with forest trees. In these portions the walls are interrupted only by two sally-ports or openings for passage. These openings occur at nearly opposite points in the circle. The passage through the outer wall is not in either exactly opposite to that through the inner. In one they are 16 and in the other 30 feet apart. To avoid two large boulders of Niagara limestone, the inner wall at one point makes a slight deflection from its regular circular course.

Upon these embankments are standing trees and the stumps of trees that had commenced their growth long before the Jesuit fathers had explored the region now comprising western New York. Traces of a moat which once encircled this work are still discernible at intervals. This moat is broad in proportion to its present depth, and in this respect is not regular. It was probably made by the removal of earth for the construction of walls, and perhaps it was not intended as an additional defense, though it must to some extent have served as such.

Three features presented by this work add much to its interest: first, it is almost exactly circular in form; second, it consists of two parallel embankments; third, the openings for passage are not

[1] This work has previously been described in Squier's Aboriginal Monuments of New York, Smithsonian Contributions to Knowledge, v. 2, 1851.

opposite in the two walls. These three peculiarities distinguish this from all other earthworks known east of Ohio.

Ten rods south of this work lies a peat swamp, 2 miles in length by 1 mile in breadth. This swamp is or has been covered by a heavy growth of black ash timber. A vertical section of 7 feet in this swamp shows, first, the remains of trees to the depth of 2 feet, next below the remains of marsh plants, gradually becoming peat, which, as the depth increases, changes in character and color from dark brown to light blue. At all depths in this peat are to be seen the remains of leaves evidently brought by the winds from the forests of the surrounding higher land. Underlying this peat is a stratum from 3 to 5 inches in thickness, composed entirely of fresh-water shells, mostly univalves, some of which are apparently species of Paludina. Beneath this stratum there occurs another, composed of blue clay intermixed with sand, containing occasionally the remains of shells, among which have been found specimens of the fresh-water clam (Unio).

These facts lead to the conclusion that this peat swamp was probably a shallow lake at the time when the works were constructed. This conclusion is also strengthened by the fact that there is no evidence of the existence of a permanent supply of water elsewhere within a mile of the work.

It is proper to state that the supply of fish in this ancient lake was abundant; replenished during the time of high water in the spring of each year from Lake Ontario, 13 miles distant, through Oak Orchard creek, into which its outlet flows.

West from the work, at a distance of one-half of a mile on the eastern slope of a sand hill, is a large "bone pit" where the bones of hundreds have been deposited. It is said by "old settlers" that those portions of the work now included the cultivated fields spoken of, originally presented the same features now seen in those which the forest includes.

Of course exaggerated stories are told of the relics which have been plowed up in these fields. Without doubt many which would be of great interest to an ethnologist have been found, kept for a while, and then given to the children as playthings by those who knew nothing of their value as relics.

On making excavations in those portions still uncultivated, many specimens of great interest are found. They usually lie from 6 to 18 inches beneath the surface, often imbedded in charcoal and ashes. They consist of hammers, sinkers, celts, stone ornaments, pipes, pottery; also implements and ornaments of bone, such as bone

splinters, awls and needles, daggers or dirks, cylindrical ear ornaments, implements for the ornamentation of pottery, perforated metatarsals, and perforated teeth. These bone implements are found in all stages of manufacture, from the rude splinter to the ground and polished implement or ornament.

What was the original height of these works can now only be a matter of conjecture. It is probable, however, that the embankments were from 4 to 5 feet in height and surmounted by palisades. Vegetable mold to the depth of 6 inches has accumulated upon those points most elevated and exposed to atmospheric action; beneath this stratum the relics occur to the depth of 18 inches. The inference, therefore, is that since the work was abandoned time enough has elapsed for the accumulation of 6 inches of vegetable matter by the slow process of growth and deposit on dry land. It was inhabited or used long enough for 12 inches to accumulate. It was probably abandoned when the lake was so nearly filled that it ceased to afford either fish or a permanent supply of water. Since the time when the timber commenced to grow at the surface of the lake, 2 feet of vegetable matter have accumulated.

PREHISTORIC IROQUOIS SITES IN NORTHERN NEW YORK[1]

REPORT OF PEABODY MUSEUM EXPEDITION, 1906

BY M. R. HARRINGTON

Jefferson county lies in the angle formed between Lake Ontario to the west and the St Lawrence river to the north. Its shore near their junction is deeply cut with bays and the waters are dotted with islands, while farther south the shore is marshy and protected, lakeward, by a line of barrier beaches. The interior of the country is hilly, the hills being composed of glacial debris resting on a foundation of limestone or, in other places, shale. Between the lake shore and the hill region lies a belt of low ground averaging 8 or 10 miles wide, whose almost level plain is broken only by a few scattered and usually rocky eminences. This plain is apparently part of the bottom of the glacial Lake Iroquois, whose old beaches can readily be followed for miles along the bases of the hills above mentioned. I refer to the traces of this ancient lake especially on account of the fact that even the oldest traces of man thus far found in the region

[1] Published by permission of Prof. Frederic W. Putnam, of the Peabody Museum, Cambridge, Mass.

ithout reference to its shore line, and consequently
e long subsequent to the subsidence of its waters.
ounty we find evidences of several ancient cultures,
as able to find out, prehistoric. When first explored
region was not occupied by any tribe of Indians,
ised as a hunting ground by several. To wandering
rs, then, the few scattered historic Indian speci-
robably due, such objects never, to my knowledge,
id in the original deposits of the village sites.
res, the Iroquoian shows the most numerous and
ns. Sites whose specimens proclaim them to have
this people are found mainly in the hill region,
Rutland Hills east of Watertown, but are occasion-
lowlands and sometimes directly on the shore.
tance the Algonkian culture, with pottery like that
nd New Jersey, has left its traces in many camping
e shore and in a few isolated spots inland.
of stone implements, women's knives, men's knives
f *rubbed* slate, identical with those still made by
lecidedly different from the points known to have
quois and Algonkian artisans, are found along the
streams. These are very rarely found on either
kian sites, but when this does happen the specimens
the surface, not dug out of the pits or refuse
been claimed that these may have been left by
arties of Eskimo, perhaps in very ancient times —
do not think improbable.
apparently the remains of underground houses but
n, are to be seen near Perch lake,[1] and near Three
een found several unusual burials, including an
cimens which included a "bird-amulet," a "bar-
onitor stone pipe, four stemmed arrow points, a
a long bone knife with incised zigzag patterns, a
lot of disk-shaped shell beads and many other
cal archeologists refer this interesting burial place
I doubt this very much for the specimens do not

of Jefferson county has attracted considerable
past, Squier especially having devoted considerable

h Lake Mounds, New York State Mus. Bul. 87.

attention to it.[1] Local collectors such as Doctors Getman and Amidon in Chaumont, and Messrs Loveland, Oatman and Woodworth at Watertown, have excavated much with good success, as their collections will testify.[2]

It was thought best to visit as many sites as possible in order to get a general archeological view of the country, and to locate if possible a favorable place for excavation. Two weeks were spent in this work with fairly satisfactory results. It was found in almost every case that the sites had been so thoroughly excavated by the local enthusiasts that it would not pay to examine them further. Except in one site, which was in the lowlands, all had been tampered with and the refuse heaps cleared out; and at this site (Durfee farm) we spent the last part of the season. The first part, from June 15th to September 1st, was occupied in exploring the Heath site in the hill country, where we were lucky enough to find a lot of graves and ash pits undisturbed although the refuse heaps had all been dug over.

But before taking these up I will give a brief summary of the other places visited during the first two weeks of our work and at odd times during the whole season.

Beginning in the northern part of the country, and taking the sites in geographical order, not necessarily in the order of examination, we find first the St Lawrence site, to which we were directed by Doctor Getman. The site is situated along some low bluffs at the headwaters of a little brook flowing into the St Lawrence river, just southeast of the village of the same name, on the property of Doctor Buckman. All the refuse heaps of this site had been examined apparently, together with many of the ash pits, by Doctors Getman and Amidon and their friends. Our brief examination showed that the place had been occupied by Iroquoian people. Ash pits were unusually numerous for a Jefferson county site and indications seemed fairly promising. If we had not found other and better sites we might have begun systematic exploration here. We found part of a stone pipe, several terra-cotta pipe stones, a stone anvil, and numerous potsherds here.

One lake shore site only was visited — the village and burial ground near Limerick, on the Julius Maynard farm at the head of Perch River bay. Here a series of terraces rise from the bay. The

[1] Squier, E. G., Antiquities of the State of New York, chap. on Jefferson county; Hough, F. B., History of Jefferson County, ch. 1.

[2] The Amidon, Loveland and Oatman Collections are now in the State Museum.

village site scatteringly covers 2 or 3 acres along the first terrace, while the burial ground was on the second terrace. Here a number of skeletons were found in removing gravel for road-making, buried in the usual folded position at the depth of 3 or 4 feet in the rather rough gravelly soil. Each grave, it is said, was marked by the presence of stained earth and fragments of charcoal. As nothing whatever had been found with the skeletons, and as the village site portion was sown to oats and could not be disturbed, this site was not explored. A little scratching in the partly dug-over refuse heaps revealed a few fragments of clearly Iroquoian pottery, so the site can probably be referred to that people.

We began our examination of the Rutland Hills series of sites east of Watertown by investigating that on John Colligan's farm, at the east end of Rutland Hollow about 2 miles south of Felts Mills. It occupies 2 or 3 acres on a hilltop on the north side of the hollow in a grove of pines and maples.

There is here a spring near the top of the hill, which must have been a great convenience to the Indians. No ash pits were found, even after careful search, but several large refuse heaps on the top of the hill and some smaller ones on the hillsides were noticed, nearly all worked out. All these, as could be seen from the few specimens found, were of Iroquois origin, but near the spring a small refuse deposit was examined, which yielded nothing but a few grains of charred corn and several pieces of purely Algonkian pottery. This small refuse heap probably indicates the occupation of the place for a short time by Algonkian people, presumably before but possibly after, the Iroquois settlement. Such inland Algonkian colonies are rare in Jefferson county, although I have heard from Mr Woodworth, the veteran relic collector of the Rutland hills, of another site yielding the same kind of pottery in the valley just west of the hills. The Colligan site, I decided, was too nearly worked out to repay exploration.

We next crossed the hollow and climbed the opposite height to a site farther westward on the farm of Ex-supervisor Allen, listed by Squier, as nearly as I could study it out, as the "sites near Abner Tamblin's farm."[1] There is no trace now of the earthwork mentioned by Squier but the field, sown to oats, showed scattered bits of Iroquoian pottery and other artifacts. The traces of occupation lie on a slight elevation partly surrounded by swampy ground, on the flat hilltop — not as one would expect from Squier's description, on

[1] Squier, Antiquities of the State of New York, p. 24, pl. 3, no. 2.

PLATE 107



the very brow of the limestone escarpment. There was nothing to encourage systematic excavation, unless perhaps in the oatfield which naturally could not be disturbed.

We passed without stopping another site listed by Squier, but examined the one located on a spur of the hill north (not west) of Burrs Mills, above a little creek.[1] This had evidently been a stronghold, the flat point of the hill being divided from the main plateau by a ditch (and probably an embankment) now nearly obliterated. The place was under cultivation when visited and digging was consequently forbidden, but we discovered the fact that hillside refuse heaps or "dumps" were neither deep nor abundant, but that there had been at least one deep deposit upon the hilltop, besides the spots of blackened earth which probably indicate the location of the bark houses. This site, according to Mr Loveland, has been very rich in bone implements. What few specimens we picked up seemed to show Iroquoian culture. It was apparent that the place had been nearly exhausted.

Passing southward, the next place visited was the earthwork on the brow of the high hill on what was once D. Talcott's farm, overlooking the old lake bottom westward, and in plain view of the island-dotted waters of the present Lake Ontario. This site lies about 6 miles southwest of Watertown, its exact location being shown on the map. It has been very well described by Squier.[2] More than half of the old oval earthwork with its gateways is still distinctly traceable — the only place of the kind left in Jefferson county, so far as I have been able to discover. Most of the refuse heaps have been rifled and many graves opened but we found a shallow village layer which yielded Iroquois pottery, a celt and a few other objects. No typical ash pits were located, but a number of corn cache pits, mentioned by Squier, are still visible from the surface. I doubt if much could be found here now, except perhaps skeletons. We photographed the best preserved parts of the earthwork.

The only other site of importance examined during the first two weeks of our work, aside from the two picked out for exploration, was the ancient village site on the lowlands of the old lake bottom about 1½ miles north of Belleville on the old Wallace farm, now the property of E. A. Nohle, the exact location being shown on the map. The site occupies a rather flat, sandy pasture south of a bit of woods, near a large spring. The earthwork, if any existed, is gone

[1] Squier, Antiquities of the State of New York, p. 22, pl. 3, no. 1.

[2] Squier Antiquities of the State of New York, p. 17, pl. no. 1.

and the only surface indications left are scattered patches of black earth and fire-broken stones, indicating refuse deposits, some of which have been explored. The little digging we had time to do revealed a true ash pit, another similar structure, and yielded Iroquoian potsherds, pipe fragments, a small celt, and some animal bones. Possibly, if we could have found time for it, the place might have repaid systematic work.

While working on the Heath and Durfee farm sites we visited several others, two of which deserve notice. One was located on the farm of a Mr Green, now worked by Mr Stevens, about 2 miles southwest of Heath's. This is located on a rounded hilltop near a brook. Among the boulders which are scattered plentifully over its surface are found occasional refuse heaps, in part worked out, containing Iroquois material, and a few shallow ash pits. A child's skeleton was once plowed up here, but we could not find any indications favorable enough to lead to the abandonment of our other plans.

The other site was about 2½ miles west of Adams, on the old Joe Taylor farm now owned by Floyd Overton, and is located on the map. On a slight terrace dividing Big Sandy creek from a little swale were traces of a camp: black earth, pipe stems, pottery fragments, etc. The outlines were difficult to make out but the place was not in all probability very extensive. The pottery, pipe stems, etc. found were Iroquoian in character.

The Heath site, where most of the summer was spent, was located on the farm of Homer J. Heath, near the west line of the town of Rodman, approximately 1½ miles west of the village of that name (see map, figure 46). A creek bounds the site on the southeast, which, joining another half a mile southwestward, forms the north branch of Big Sandy creek. The northwest side of the knoll where the site is situated is bounded by a small swamp, full of springs, the waters of which flow into the main creek through a little brook around the southwestern end of the knoll. The northeastern end of the site curves into a fine maple forest. Here the expedition tents were pitched.

A number of smaller springs emerge from the hill on the creek side, one of which near the camp furnished us good water and was probably of similar service to the Indian. The knoll itself is a gradually narrowing tongue of land some 600 feet long, stretching southwestward from the higher ground beyond. It is fairly level along the ridge proper as may be seen in the photograph, but slopes down to the creek on one side and to the little swamp on the other.

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At the widest part it reaches a breadth of about 160 to 200 feet. Near the southwestern end is a hollow crossing the ridge, just beyond which the land rises again to more than its former height and continues 150 feet to the little brook, forming a sort of semidetached knob. The highest part is not more than 30 feet above the creek. Higher hills encircle the site on the land slide, which seems a peculiar feature for as a rule the Indians did not like to build their villages when they could be commanded from a nearby eminence.

The knoll lies at the point where the creek issues from its narrow ravine among the hills to a broad level valley which seems to have been an arm of Lake Iroquois; so the knoll may have originated as a bar of sand and clay formed around a reef of limestone by the swirling stream, loaded with sediment, as it emerged from the glen into the quieter waters of the bay. The drift material of the surrounding hills is of glacial and not fluvatile origin.

The indications of Indian occupation, as is shown by the stipple on the Heath site map, are scattered over an area about 800 feet in length along the top of the knoll and down the slope at both sides to a breadth of approximately 240 feet. They consist as usual of black soil, fire-broken stones and occasional bits of broken pottery or worked stone showing among the grass roots of the pasture, most abundant in occasional patches.

In order to get more exact information concerning the nature of the site than could be observed from the surface, the distribution of graves, ash pits and refuse heaps, and consequently the best places to dig, the usual procedure was followed, a series of holes being dug resembling post holes, in parallel transverse lines across the hill, each hole of course revealing the nature of the soil at that particular point. The results showed several deposits of refuse upon the knoll in its eastern part, especially just above the spring, but these with one trifling exception, marked "A. H." on the map of the site, had all been overhauled by previous collectors. The one above the spring had been from 18 inches to 2 feet deep and covered an area some 25 by 10 feet, although the exact limits were hard to define on account of the spreading effect of the plow. Westward along the ridge were scattered graves to the number of twenty-seven, containing thirty-two skeletons in all, clustering thickly as shown on the map on the brink of the little transverse hollow. This part was explored by a series of trenches run where it was thought they would do the most good. The little knob west of the

rounded the site before the knoll was cultivated.[1] Its form as far as could be traced is shown on the map of the site, and the probable form of the missing part is indicated by a dotted line. The trench seemed to average about 2 to 3 feet deep. Judging from the before-mentioned similar work still extant on Talcott's hill, there was probably an embankment around inside the trench, with one or more gateways across both ditch and bank.

Having concluded this general description I will now take up more carefully the graves, ash pits and other phenomena observed during the course of the work, and to this end will describe in some detail examples of each kind which I consider typical. The graves, as before indicated, were first discovered by the posthole method and then when the grave area was once located it was easy to drive trenches across it, removing the plowed surface layer, and then to locate the graves from above by the contrast of their stained disturbed earth mixed with bits of charcoal to the clear color of the undisturbed sandy soil composing the knoll. Another indication is the marked softness which is still noticeable in the disturbed soil filling the grave. Sometimes ash pits were mistaken for graves at first, and in one case the remains of two skeletons were found in an ash pit below the northwest refuse deposit near the swamp.

No order or regularity was observed in the location of the graves unless the bunching at the southwestern end of the site, so noticeable on the map, may be considered as such. It was also observed that all the graves, and all the pits for that matter, lay within the limits of the old earthwork, although there were refuse deposits outside. In depth the skeletons varied from 8 to 36 inches from the surface to the uppermost bones, with an average a little less than 20 inches. This average would doubtless be somewhat higher but for the action of the plow in removing, year after year, some of the covering of earth from above the skeletons. Some had actually been struck and broken by the plow.

The folded or flexed position of burial prevailed here as elsewhere among precolonial New York Indians. The bodies were doubled up, with knees close to the chest and arms flexed, then laid on their sides in the grave. I have selected two photographs from our series to illustrate this point; representing the skeletons in pits 9 and 51.

Pit 9 was found some distance east of the main group of graves and was discovered in digging the first or exploration trench. Its dimensions were 48 by 30 inches and it contained a skeleton at the

[1] Hough, F. B., History of Jefferson County, p. 12.

depth of 12 inches, lying on the left side heading west and facing north, folded up in the characteristic position shown in the picture (plate 104). Near the top of the grave was a distinct layer of ashes. The bones were in fair condition, although badly cracked by the plow, especially the skull which fell entirely to pieces. Nothing had been buried with the dead, unless a few grains of charred corn may be considered, or the lower mandible of some squirrel found lying on the right side of the crumbling bones. The skeleton in pit 51 was similar except that it headed west-southwest and lay at about 26 inches deep, well out of reach of the plow. This seemed to be the remains of a woman, while the skeleton in pit 9 was evidently that of a man.

Eleven of the skeletons found (about one-third of the total number) were those of children. These, so far as could be traced from the badly decayed bones, lay in the typical folded position.

In five cases the remains of two individuals were found in a single grave, in two instances both adults, in three an adult and a child (see plate 105). Little can be said about these skeletons except to note that of the two in pit 21, "A" had a skull of relatively high type while that of "B" was unusually low, with high brow ridges and considerable prognathism.

In pit 59 we have a good example of a child and an adult buried together. It is interesting to note the irregular decay of the bones, probably due to the disintegrating action of roots and similar causes. The head, shoulders and upper body of the adult are well preserved, while in the lower part and in the child's skeleton decay has nearly destroyed even the largest of the bones.

On the whole the bones are much worse as to preservation than those previously found in New York State by the museum expeditions — due partly perhaps to greater age and partly to local conditions. Many of the bones lay directly upon the clayey hardpan below the layer of sandy soil, which made them liable to long-continued soaking in and after every spell of wet weather.

As to orientation of the burials, little order seems to have been practised. Out of twenty-nine observations, eleven skeletons headed west or nearly so, seven east, one north, five south, three northwest and two southwest. It will be noticed here that there seems to be a preference for heading the bodies west, which became more apparent when we consider that the three heading northwest and the two southwest may have been intended to head west. It also seems to have been something of an object to let the faces of the dead turn

toward the north, for twelve were facing that way, against
toward the south, two toward the east, three to the southwest
one to the northwest.

One favorite Iroquoian method of interment, the so-called "bo
burial, in which the skeleton is more or less completely disjoi
before being placed in the ground, was here represented by a si
case only, that of pit 52, which contained the tangled and disjoi
remains of an adult skeleton. The only bones which remaine
the natural position were those of a leg and a foot. The hig
bone, a lower jaw, was 35 inches from the surface, the lowest
inches. The skull, badly decayed, lay in the middle. The photogr
shows this burial in the background rather poorly, while the f
ground is taken up with the more ordinary skeleton in pit 51.

The ossuary method of interment, in which many disjointed sk
tons were buried together, was not observed here.

We were disappointed to find that while Indian skeletons ar
no means of infrequent occurrence in Jefferson county, it is exc
ingly rare to find anything buried with them. Three cases (
these are not all sure) were found among the thirty-two skel
at the Heath site. The skeleton in pit 60 had a decayed bone
lying behind its head and a supposed but doubtless paint stone
the knees. That in pit 75 had an unfinished celt near the chin.

The clearest case of objects buried with a body was foun
pit 71, where an adult and an infant were discovered, but in a
poor state of preservation and covered with stones and slabs —
unusual feature. One of the slabs above the adult must have wei
a hundred pounds. Near the back of the infant lay several bu
of bone beads or tubes, badly decayed, arranged in parallel gro
probably forming part of an ornament or other burial offering.
bone awl, celt and paint stone may have found their way into
other graves by accident — perhaps thrown in with the earth.

A number of graves showed layers of ashes near the su
which are relics perhaps of a ceremonial fire lighted upon
grave after burial. More definite and particular data for the sl
tons will be found in the appended tables. Besides the skel
there were found in several ash pits a few detached human b
a lower jaw in pit 64, a tooth in pit 66, and teeth and charred b
in pit 70, all on the northwest hillside, which are rather difficu
explanation. Two other fragments were found in natural hol
on the ridge where they had probably been dragged and covere
by the plow which had detached them from their respective skel

depth of 38 inches. The "pocket" may have been a gully in the face of the bluff which became filled with refuse thrown over from above. The lower part was largely clay with only slight traces of disturbance and occasional stains of black. Pottery, animal bones and Unio shells were found, and also bone implements, pipe fragments and the like. Near the downhill end of the deposit, on the south side, at a depth of from 17 to 25 inches, was a mass of human bones embedded in almost solid clay, representing all parts of the body except the skull. The joints were usually broken, and one bone looked as if it had been subjected to the action of fire.

Refuse heaps F, G and H were small examples of the hilltop variety, as is shown on the chart of the site. They attained a depth of about 2 feet and contained, as a rule, the usual material.

Refuse heap I was also small, and was found on the hillside, as indicated in the chart and the photograph. Only about 6 feet in diameter, its principal claim to notice lay in the fact that it contained two black layers, separated by a 6-inch layer of clay. Rather good material of the usual sort was obtained from both layers.

Still farther southward was refuse heap J, apparently filling a hollow in the little flat shell of land between the rock knoll and the flood plain of the creek. Its dimensions were about 10 by 12 feet, and it reached a depth of 20 inches near its north edge. The filling of stained earth was rather soft and dry, with a layer of charcoal, charred corn and the like at the bottom. A surprising amount of material was taken out here, including some portions of clay pipes in animal forms.

A few ash pits were observed, as before mentioned, on the flat hilltop but only three of them deserve description, all of which are located on the chart. Pit 1 reached the depth of 20 inches, was homogeneous in construction and had a diameter of about 4 feet, but the outline was very irregular. A little ordinary material and several large decorated pieces of the same jar were found within it, and a photograph was taken showing them in position. Adjoining this on the west and shading into it so that the line of demarcation could not be distinguished, was pit 1A, containing the skeleton of a child which lay about 30 inches deep on the right side heading north-northeast. It was drawn up in the usual folded posture, and there were no accompanying objects.

Pit 2 was found about 2 feet east of pit 1 and turned out to be 3 feet deep by 4 feet 6 inches wide — a typical ash pit, with irregular layers of black charcoal and white ashes containing a little of the usual refuse.

Another structure that might almost be called a pit was found beneath refuse heap A about 6 feet above the bottom of the slope. It was a saucer-shaped layer of calcined material, 14 inches from the surface, underlaid by charcoal and some 2 feet in diameter. In its hollow were found some fragments of human skull, some broken stones and a few potsherds.

Specimens. The description of the work ended, we will now take up the specimens found at both the Heath and Durfee Farm sites. There was no difference perceptible in the patterns and forms of the pottery, bone implements, etc., so that it was clear to me that the specimens from both places should be considered as representing the arts and life of one and the same people. Of course, some things were found at Durfee farm and not at Heath's, and vice versa; but these articles were of the rare varieties, of which one could not expect to find a full set in either site. The specimens will be classified according to use, under the heads of weapons, implements, domestic vessels, pipes, ornaments, games, foods and specimens showing the methods of manufacture.

The most common objects which can be classed as weapons were the arrowheads of bone and deer antler. The antler point was merely, as a rule, an antler prong drilled out at the base to receive the shaft and whittled or rubbed down to a fine point at the tip. When well made a cross section of this type would be lenticular. The commonest bone arrowhead is a small hollow bone, such as the femur of some small animal, cut off square at one end so that the marrow cavity would serve as a socket for the arrow shaft, and sharpened at the other end. Arrowheads of solid bone are also found, made like the stone arrowheads in triangular and sometimes slightly stemmed forms.

Objects of chipped stone were rare, but a few triangular arrowheads, in the main nicely chipped after the old Iroquois pattern, were secured.

One specimen only of the barbed harpoon of bone, which is usually fairly common in this region, was found; but this was struck in digging by one of the assistants and so badly broken that it was almost unrecognizable. Another somewhat similar but smaller barbed object was exhumed, perhaps an arrowhead for fish, or one of the prongs of a fish spear. There was also a small, slightly curved bone barb sharpened at one end but with the other roughened for attachment to one of the jaws of a fish spear, or to a wooden fish hook.

Perhaps the stone celts found in considerable numbers on both sites were sometimes used as weapons, but their shape and small size leads me to doubt their efficiency as battle axes.

Under cutting implements we may enumerate first, as most abundant, the knives or chisels made of split incisor teeth of the beaver, ground down to a narrow cutting edge; then came leaf-shaped knives of flint, the regular Iroquois type. It should be mentioned here that flint or even chipped implements of any sort are very rare on the Iroquois sites of Jefferson county.

Bear teeth ground off longitudinally or diagonally on one side may have also served as knives, a type of implement peculiar to the region. There was also a knifelike blade of bone with a long stem bearing many notches, apparently for the attachment of a handle, but whether this dull-edged implement could have been really used as a knife is difficult to say.

Piercing implements, especially awls of bone, were abundant. These were of all grades of make and finish, from a mere unworked bone splinter showing signs of use to a beautifully rounded and polished slender awl nearly 12 inches long. Some showed signs of decoration composed of straight lines and notches, as shown by certain Loveland specimens. One awl was discovered encircled by a bone bead; another was double pointed, while a number had been used and resharpened so often that they were reduced to mere stubs.

Bone needles were of the flat, slightly curved type, made of parts of deer ribs or sometimes of bird bones.

A stone nodule pointed at one end seems also to have been used as a perforator.

The stone celts found were usually small, but were probably hafted as axes or adzes, for chopping (with the aid of fire) and a piece of a true adz was found, also of stone. Some slightly chipped cobbles may have been used as hand axes or choppers.

Pounding, pecking and crushing were represented by disk hammerstones, some with finger pits, by shallow mortars or metatelike hollows in stone slabs, and by mullers of much the same form as hammerstones to go with them.

Among the miscellaneous implements were grit stones with grooves showing the sharpening of bone implements, a few scrapers, including a flint knife with one end specialized for scraping, stones apparently used in smoothing pottery, net sinkers and stones cracked by heat as if they had been used for stone boiling, if one can include these last under implements.

The pottery vessels of which so many fragments were found, had apparently all been of typical Iroquoian shape, possessing the globular body, constricted neck and rather broad projecting rim or cornice to a marked degree, often with one or more high projecting points. Sometimes a point was protracted into a long flat ear, sometimes it projected in a form resembling the ram prow of a warship, a mild type of which is shown in figure 2, plate 92. Sometimes there was even a handle connecting the projecting point with the body of the pot below — a local development. Decoration was well advanced and the patterns frequently showed unusual taste and skill in design and execution. They are composed of combinations of straight incised lines, small circles, dots and notches usually in geometric patterns, but occasionally representing the human face in conventional form. A few specimens bearing raised decoration were found in both places, and one vessel had been painted yellow. The patterns were usually confined to the projecting cornice but sometimes also formed a band encircling the pot where it begins to expand, just below the neck, and sometimes covered the neck as well. The vessels varied much in finish and degree of ornamentation, and in size from a perfect tiny pot, only about 1¼ inches high, to fragments of vessels holding several gallons.

Pipes were generally of terra cotta, but one fragment of a stone pipe was found. All the former were of typically Iroquois patterns, including the trumpet or morning glory shape, the still more common type with straight sides and encircling rings, others decorated with dots, and some with straight-line patterns copied from pottery designs. Some were in eccentric shapes and others took the form of, or bore representations of, life forms such as the human face. While pipes of all kinds were found in considerable quantity, they were usually broken. Sometimes they were beautifully made, and in the case of the trumpet form, often highly polished.

Beads of different kinds were the most numerous class of ornaments found; and among these, beads of bone predominated — the regular tubular form, more or less polished. Stone beads were fairly numerous, some of serpentine being nicely made and polished, while others of red slate were ruder. Several specimens were found of terra-cotta beads made of broken pipe stems. Another form of bead was a long cylindrical kind of considerable thickness made of the columella of some large marine univalve evidently obtained by trade or capture. Still another was the shell of a small fresh-water snail, perforated for suspension. I saw several disklike beads of

Unio shell in Mr Loveland's collection obtained some years ago from the very site where we worked on Homer Heath's farm.

The most interesting ornament found was the greater part of a disk or gorget made of human skull with six perforations, another article of which nearly every local collection has one specimen. Stone gorgets were not found by the expedition and the few found to my knowledge on these Iroquois sites by local collectors could better be called pendants, being rather thick and perforated only near the end or edge — quite unlike the typical gorget which I never saw on or from an Iroquoian site. A bear's tooth perforated for suspension was also evidently an ornament. Perhaps under this head may be included also some sheets of mica, a quartz crystal, and a paint stone showing rubbing.

Under the head of games are classified the usual perforated deer phalanges for playing the game of "cup and peg," other phalanges rubbed to a sort of pyramidal shape characteristic of this region; a large number of small disks of slate and pottery, some of which were wholly or partially perforated, and some scratched on one side.

The vegetable foods of the old people were represented by charred corn, kernels, stalks and cobs, wild plum stones, hickory nuts, butternuts, and calamus roots; animal foods by the bones of the deer, bear, raccoon and other mammals, by the bones of various but as yet unidentified birds, of sturgeon and other fishes, and by the shells of the Unio or fresh-water clam. Specimens showing the method of manufacture of stone implements were confined to a few flint and quartz chips and rejects, and unfinished beads and disks of serpentine and slate. An unusual process, observed for the first time here, was the *chipping* into form of large pieces of bone for bone awls and harpoons. Bone beads and awls were also obtained in the process of manufacture by the more usual grooving, shaving and rubbing methods.

Wads of clay and parts of coils preserved by accidental burning tell of the manufacture of pottery vessels and sherds chipped roughly into circular form, of the making of pottery disks.

Finally a charred bit of birch bark found in an ash pit may have been intended for making some vessel of domestic use.

Taking the collection from both sites as a whole, it can be said to be thoroughly Iroquoian. The form and the decoration of the pottery and the pipes, the triangular form of the flint arrowheads, and the exclusive use of celt axes in place of grooved axes, taken together, are unmistakable. In a few minor details, however, the material culture differs from that of other Iroquois regions examined by the expedition; there are certain features peculiar to the locality.

Among these are the abundance of stone beads and disks of pottery and slate, the presence of the bear-tooth knife, the perforated gorget of human skull and the pyramidal "gaming bone." Pottery reaches an unusual development here, especially in the occasional use of handles and the exaggerated "high points," and the conventional human face is used more here than elsewhere.

The question then arises, To what branch of the Iroquois did the makers of these articles belong? The information at hand seems to point to the Onondaga. I am not familiar enough with historic Onondaga collections to be sure on this point, but the Onondaga Indians of today, according to Beauchamp,[1] claim this more northern region as the home of their ancestors in precolonial times and he himself favors this view.

As to the age of the sites examined, our only criterion is the fact that no European trade articles were found on either site, the few bits of crockery and the like found in one small spot at the Durfee farm site being demonstrably not contemporaneous with the Indian remains, but much later. For that matter I have yet to see an article of European make found really associated with the Indian remains on a Jefferson county Iroquoian site, as they can be seen any time in the Mohawk valley or in western New York. We can thus assume that these Iroquoian sites, or at least the two explored by the expedition, are precolonial, and were probably occupied by the Onondaga before they moved south to their present location near Syracuse. To my mind the specimens illustrate the prehistoric Iroquois culture at its best.

Before leaving the region I photographed certain specimens from Mr Loveland's collection in Watertown, all from the local Iroquoian sites, which illustrate types most of which were either not found by the expedition or were found in a fragmentary condition. A brief description of the specimens is appended with the pictures. In closing I wish to give credit and thanks to Mr Homer J. Heath, the owner of the Heath site, and to Mr P. W. Kilmer and his sons, who work the Eastman farm at the Durkee farm site, for gifts of specimens and their many kindnesses to the members of the expedition. To Mr Robert D. Loveland of Watertown our gratitude is also due for his hospitality and for the permission to photograph his specimens. Doctor Getman of Chaumont gave us specimens, and both he and Doctor Amidon of the same place showed us their collections and gave us helpful hints.[2]

[1] Beauchamp, Aboriginal Occupation of New York, p. 12.

[2] The Loveland Amidon and Oatman collections are now in the State Museum. A. C. P.

THE OWASCO ALGONKIAN SITE

BY A. C. PARKER

An early Indian village or camp site on the shores of Owasco lake, near its present outlet, has been reported by several students of archeology during the period of twenty years and considerable quantity of material has been discovered in the vicinity. In the spring of 1915, Mr E. H. Gohl of Auburn, by fortunate circumstance, discovered one of the large dump heaps of the village and succeeded in unearthing several hundred fragments of pottery and numerous stone implements. At the joint invitation of the Auburn and Syracuse Electric Railway Company and Mr Gohl, this department was enabled to make an examination of the site by excavation.

An inspection of the site led to the conclusion that it was a small village site. The ground which it covered was on one of the shore or beach lines of Owasco lake, that had been laid down when the lake was 20 or 30 feet higher than at present. The Indian site covered the slope at a point most convenient to access to the outlet, which was undoubtedly a fishing place.

Mr Gohl had opened up one refuse heap and had discovered the fragments of two large pots which he succeeded in partially restoring, when the operations of the Museum commenced. Excavations covering a period of about three weeks resulted in obtaining some two hundred fragments of pottery including rims, fragments of about ten pipes and one complete pipe. The implements of chipped flint were rare and nearly all of a triangular pattern, and the arrowheads are not notched. One ovate knife is of chalcedony. The bone material consists of phalangeal cones of a type frequently found on similar sites, bone awls, cylindrical beads and bone needles and shuttles. One harpoon tip and two antler pitching tools or pins were discovered. The stone material consists of metates, anvils, hammerstones, notched sinkers and small scrapers. A large block of chert was found in one section of the site and among the numerous fragments scattered about it were several partially completed implements. The block was probably the source of an arrow-maker's material. Two perforated stones were found, one a large discoid bead and the other a fragment of an unfinished gorget. Unio shells were numerous and there were fragments of the bones of deer, bear, wild turkey, raccoon and several varieties of fish.

Plate 108



Ash pits were numerous and within an area of 100 square feet, fourteen were noted. In nearly all of them the underlying sand was burned hard and red and the accumulation of white ash in several instances was from 3 to 6 or 7 inches in depth. In a large deposit which appeared to be a central location there was a saucer-shaped depression filled with ashes and carbonaceous substances. This depression was 14 feet in diameter and in the center there was a depression paved with flat stones. This was filled with ashes. The remains of a dog's jaw, fragments of split deer bone, fish bones and several kernels of charred corn and hickory nuts were found in the ashes. The stone basin was taken up and has been restored for exhibition purposes in the Museum.

An examination of the pottery articles leads to the conclusion that they are of Algonkian origin. They are similar in every respect to articles found on Algonkian sites along the Seneca river, Oneida lake and along the east shore of Lake Ontario stretching northward to the St Lawrence. Similar material is also found southward in the valley of the Chenango and along the tributaries of the Susquehanna. From the character of the articles we judge that the site was precolonial and perhaps prehistoric. The occupants were probably some division of the Delaware family who came into the region before the Iroquois obtained control of central New York. The collection has been cataloged and has already been installed in Archeology Hall.



Fig. 47 Elbow pipe from the Owasco Lake outlet. Algonkian. X.

One of the important specimens in the collection is the pottery vessel restored from more than two hundred fragments. This vessel is typical Algonkian in shape and decoration and is the largest Algonkian pottery vessel in the possession of the Museum. (See plate 107.)

n an area of 100 square feet. of them the underlying sand accumulation of white ash in 7 inches in depth. In a large al location there was a saucer- and carbonaceous substances. r and in the center there was a his was filled with ashes. The split deer bone, fish bones and ickory nuts were found in the ip and has been restored for

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o Lake outlet. Algonkian. X.

in the collection is the pottery hundred fragments. This vessel decoration and is the largest session of the Museum. (See

Plate 108



Articles of bone found at Lakeside, Owasco lake outlet, by E. H. G 1915

ACTERISTIC COASTAL ALGONKIAN SITES

BY ARTHUR C. PARKER

f Long Island, both north and south, stretching to
nits, are marked with evidences of former Indian
me of these sites are inland upon some portion of
lly attractive in aboriginal times but most of them
the shores of sheltered bays and coves or upon tide

Matinicock Point Site

s my privilege to join an expedition sent out by the
um of Natural History under the leadership of M.
ngton, then working under the direction of Prof.
atnam. Mr Harrington, who had made a good sur-
g Island coast, found that there were a number of
sites along Oyster Bay, especially near the villages
Bayville and at Matinicock point. It was the latter
hosen for excavation. Here upon a rise of ground
eek and a small fresh-water brook was what seemed
ve shell heap and evidences of a village site. Mr
red permission of Miss Matilda Cock, the owner
onduct his investigations.

revealed scattered deposits of shells and heavily
unning several hundred feet back and up the slope
y land near the brook. It was only by diligent post
occupied area was outlined, for while there were
ns in the way of shells and occasional potsherds, the
ow-torn and cultivated for nearly 200 years. It was
e, however, that the portion of the land modified by
Indian dirt" grew the rankest grass and the tallest
s one way that the village site was located. The
d to determine the depth of the deposits.

staked out and trenches were outlined running up
om the brook. The digging was done down hill to
ur excavations it was found that the soil stained by
l from 1 foot to 2 feet in depth. There were fre-
n the form of bowl-shaped depressions filled with
nimal bones, and the shells of clams and oysters.
ional sea snail and scallop shells.

re fairly plentiful and one complete antler was
ones were of turtles, snakes, raccoon, dog, mink,

woodchuck and certain bird bones, presumably duck and wild turkeys. Shells, however, predominated.

Some of the pits were filled with shells all of one kind, as scallops and soft shell clams. Mr Harrington thought pits of this kind evidence of native clambakes and says in his notes:

> This theory seems to be borne out by the fire-broken stones and ashes in the pits, and the fact that most of the shells show no signs of having been forcibly opened. A fire was probably made in these pits on a bed of stones, when such could be procured, and kept burning until the stones and the surrounding ground were very hot, when the shell fish and other food were put between layers of sea weed. Then the whole must have been covered and left to steam until the food had been thoroughly cooked.

Aside from the abundant evidences of food found in the shell and refuse deposits, there were found fragments and in some cases entire specimens of artifacts. The records show that there were numerous chips of flint and quartz, flint and quartz jasper and argillite arrow points, of the notched variety, scrapers, drills and knives. In one small pit there were two cache blades of oval pattern. Larger objects were shallow mortars or metates, hammerstones, pitted stones, chipped pebbles, probably choppers, and a fine maul with a pit and grooved sides. One of the best specimens was a grooved axe, rather well made, and found about 18 inches below the surface in soil that showed only slight traces of occupation. Another interesting specimen was a broken gorget that had been redrilled. Pigments were represented by one piece of graphite, evidently much rubbed, some yellow ocherous clay and cuplike modules of limonite with a red pigment clinging to the inside.

Many fragments of pottery were found. The decoration was characteristically Algonkian, and consisted of impressed patterns of cords, coarse fabric, twisted grass, and twiglike markings. The decoration was carried over the rims of the pots well down into the neck. One specimen was impressed with the edge of a scallop shell. The tempering material was coarse sand in some instances, but in the majority of cases of pulverized shells. No sherds showing pottery with a constricted neck were found, and the few fragments that had incised designs were crudely marked.

Bone implements were fairly numerous, considering the character of the occupation. There were awls made of splinters of deer bone, some of them being exceptionally well made. Some were decorated with incised lines. Several specimens were perforated for tying to the belt or other place. Several broken needles came from the

refuse; these were thin, flat splinters, neatly worked and perforated in two or more places in the middle. Several pieces of tubular bone were found, one of them being marked with six incisions drawn across the object. Of considerable interest were the fragments of mentapodial bone scrapers, or drawn shaves. The two fragments discovered lacked the joints that served as handles at either end.

Some pieces of worked antler were obtained, among them two specimens that seemed to be parts of chisels or small wedges. One piece of antler worked in the form of a small cylinder and broken, seemed to have been part of a flaking tool used in making flint articles.

In one pit in the center of the slope was a dog's skeleton, and near it a fragment of a human skull. The bones of the dog were properly related, except the hind legs which had been dug away after burial and partly calcined by the fire from a pit that had intruded into the burial. The human skull fragment was the only human bone found. Efforts were made to locate the burial ground but it was not discovered. Local traditions related by the people about Matinicock mentioned the finding of skeletons in other places, and thus it may be that no burial ground was associated with the site at least not nearby.

The only cultivated vegetable foods found were a few kernels of charred corn, one bean and what seemed to be a plum pit.

From our excavations it was concluded that the site marked a small village of the Matinicock Indians, and that the time of occupation was precolonial. The spot was well sheltered, the soil, especially on the top of the rise, was dry and well drained, access to the tide creek was easy and the fresh-water brook furnished an abundant water supply. Food must have been plentiful and well within reach. The waters of the creek were filled with fish and the mud afforded a plentiful supply of oysters. From the site it was an easy row to any part of Oyster Bay proper, while the overland trails led to inland hunting grounds.

Dosoris Pond Site

While conducting our excavations at Matinicock, Mr Harrington and myself found it possible on frequent occasions to visit other sites. Many of these were too scattered and too small to repay investigation. With one, however, we were particularly impressed. This was situated on Dosoris pond, near Glen Cove, and lay entirely upon the estate of Mr James Price. Of the many visitors who came to our camp at Matinicock, Mr Price had been one of whose sympathy we were sure. He at least realized that the

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young men in overalls who were perspiring over the strange task of turning over all the Indian dirt on Matinicock point and looking at it, were conducting a sane operation. We were thus invited to examine the Dosoris site, the greater portion of which lay upon the front lawn of the Price estate. Mr Price's cooperation extended even further, and he not only housed the expedition but assisted in a manual way the burdensome work of excavating the shell heap.

Dosoris pond is a small tidal cove, of such a character as to be especially hospitable to innumerable shell fish. A fresh-water brooklet runs into the pond and along this stream one of the shell heaps is located. The other is at the top of the rise of ground about 100 yards to the west.

Shell heap 1, in the hollow near the brook, was 25 yards long and about 14 yards wide. In places the depth reached 42 inches beneath the surface. It was a thick, compact deposit of marine shells, so thick, indeed, that digging with a spade was a difficult task. There were fourteen pits in and at the edge of this deposit, several being as deep as 50 inches. These pits were filled with fire-cracked stones, charcoal, deer bones, split for the marrow, fish bones, and occasionally artifacts, such as bone awls and fragments of pottery.

In one pit were found fragments of chert, two quartz points, a bone awl and beneath a flat stone the crushed skeleton of a dog. Another pit contained, besides the shell refuse, a bilateral mortar, three bone awls and a quantity of potsherds.

The upper deposit, shell heap 2, was 35 feet long and of nearly the same width. Here the shell deposit was nearly 3 feet deep. At one place at the edge of this heap a stoned-up cache or cellar was found. It was made of small boulders and inclosed a well of more than a foot in diameter. This cache had been built upon an older deposit that went down 3 feet farther. Some argillite points were found in this heap.

There was a small burial place midway between the two shell heaps, but it had been disturbed by excavations made when laying water pipes. No complete burials were found, the bones being intermingled and badly broken. What Mr Harrington's excavations were, after my return to New York, I have not learned, but from his notes it seems that no burial ground was found.

The implements found at Dosoris. The chipped implements and others of stone found at the Dosoris site are similar to others found on the surface, and other shell heaps, as at Matinicock. There were chipped points of quartz, gray flint, yellow jasper and argillite.

Some were broad triangles. Net sinkers were found, objects strangely absent from Matinicock. The mortar we have already mentioned.

Articles of bone include awls, some finely finished, broken needles, antler tips, two antler punches, perhaps pitching tools, an antler arrow point, a worked beaver tooth scraper, an antler pottery marker, parts of a turtle shell cup and a flat tablet of bone.

It seems surprising, when making an examination of shell heaps, that shell was not employed to a greater extent for implements. A few were found here, however. Among them a scraper made of oyster shell and some perforated shells, probably ornaments. Of perhaps greater importance were the numerous parts of Busycon shells, especially the columellae, worked into small cylindrical lengths for cutting into wampum beads. A fairly good series showing all stages of the process was obtained. Mr Harrington found one deposit of these in which was a small awl and sharp quartz flakes. He thought that they had been inclosed in a wampum-maker's bag when lost.

The pottery fragments were particularly interesting. Most of them were typical coastal Algonkian sherds, showing about the same type of decoration as at Matinicock, except that the designs were better. Among the sherds were several that were Iroquoian. One had incised lines in triangles and revealed a raised rim and constricted neck. One had a conventional face similar to prehistoric Iroquois designs. All the pottery seemed better made and tempered more carefully than at Matinicock.

The shell heap appeared to be precolonial and to have been entirely the work of members of some Algonkian tribe, possibly the early Matinicock. In later days it may have been a spot where clams were caught and dried for winter supplies or for barter. The existence of wampum shells may indicate that at this place these valuable beads were blocked out, later to be carried away and finished. The presence of Iroquois pottery may point out contact with these people or indicate that they came down from their Mohawk valley homes to take tribute of food and wampum even in prehistoric times.

Evidences of occupation were not confined to these shell heaps near the pond. In almost every field about the place arrowheads, fragments of pottery and other implements have been found. Indeed most of the territory between Dosoris and Matinicock seems to have been occupied in spots, here and there, for relics are found upon almost every farm and in almost every garden. The region was one where there could be no hunger while the shell fish lasted.

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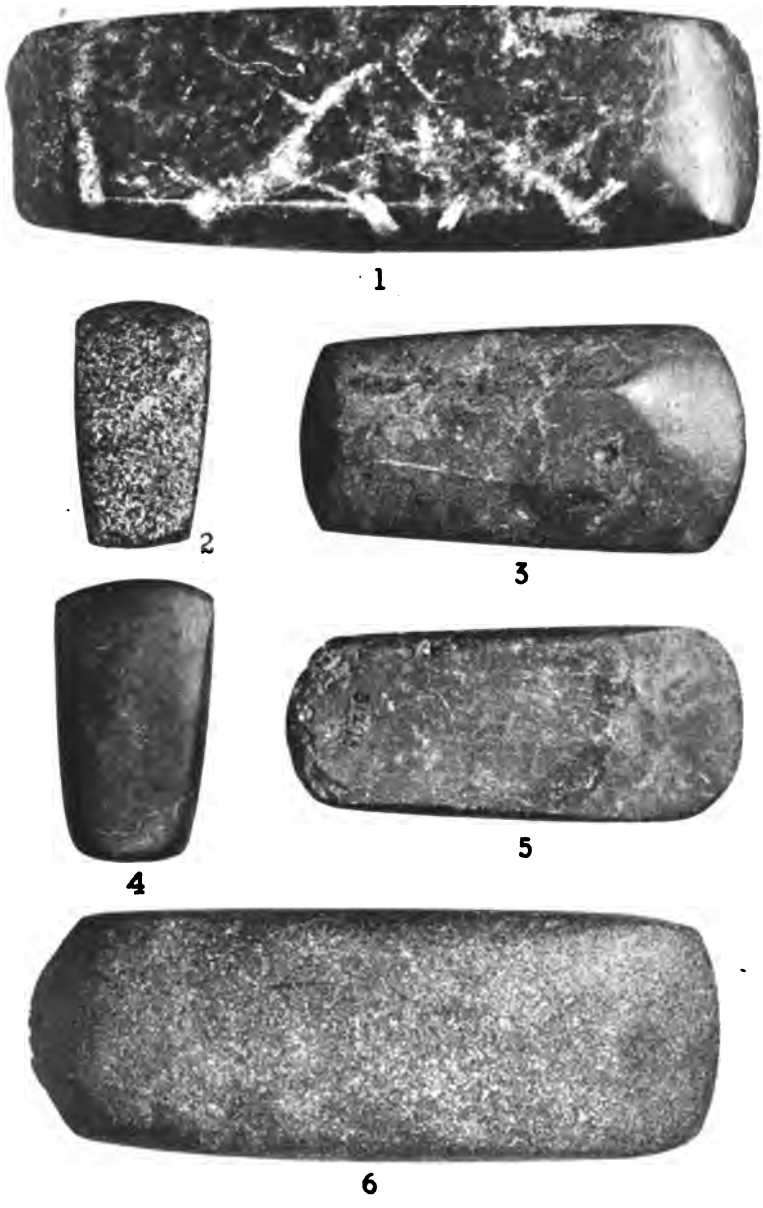
NOTES ON CERTAIN ARCHEOLOGICAL SUBJECTS

In presenting this section of this volume, we are keeping in min that our aim is to be of service to the new student, as well as to giv information to the professional archeologist. In our descriptions o the various cultures and the various sites examined certain subject and certain specimens needing further description are mentione In these notes, therefore, we have striven to supply informatio along these lines. There is no pretense of exhaustiveness and n attempt to cover all subjects. Part V is simply a series of note for the sake of convenience arranged in alphabetic order. Man descriptions not here found may be treated in the general body of th work. Consult the index for such topics.

Adzes. Adzes are similar in outline to celts but are made witl one surface called the belly, flatter than the other or upper surfac called the back. They were designed in most cases to be mounte flat like a steel adz of the present day. Certain forms had the but end inserted in an antler or wooden block, which in turn was hafted The Eskimo used this form recently. Some adzes have groove backs, similar to the grooved axe, but the underside that rested upor the bed of the handle had no groove.

Adzes are particularly numerous in central, southern and western New York. In all these localities the beveled type is frequent. I is interesting to note the high degree of finish of most adzes, as opposed to the rougher forms in which celts are found. Many have a high polish and in numerous instances the material is of some ornamental hard stone. The sizes vary, as in celts or gouges, from very small forms measuring but little more than an inch to larger ones measuring 10 or more inches.

Adzes were wood-working tools probably used to dig into very soft wood, or to remove the charred matter from utensils made by the use of directed fire. Some may have been skin scrapers or hide dressers. Adzes are less common on Iroquoian sites than celts, being mostly found in places once occupied by tribes who used grooved axes, notched flint points and spears, cord-marked clay pottery, steatite vessels, banner stones and other "problematical slates." The method of manufacture was identical to that of celts,



Polished adzes from New York localities. x1-2

1, highly polished adz from Glens Falls; 2, small granite celt-adz from Seneca River; 3, beveled adz, Honeoye Falls; 4, small black adz, Van Buren; 5, bottom side of adz, Van Buren; 6, bottom of double bitted granitic adz from Avon.





3



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York localities. X1-2
lls; 2, small granite celt-adz from
alls; 4, small black adz, Van Buren;
ottom of double bitted granite adz

and all well made forms, will spin upon the point of balance. Consult, H. B. 30, Bur. Am. Eth., Moorehead, The Stone Age, Prehistoric Impl.; N. Y. State Mus. Bul. 18; Bur. Am. Eth., Rep'ts, 1892, 1899.

Antler, uses of. The antlers of deer, moose and elk afforded a highly valued material for the aboriginal craftsman. From this material were made many tools and even ornaments. Among such objects may be named knife handles, digging blades, awls, punches, pitching tools, pins or plugs, war club points, arrowheads, spear points, combs, gambling buttons, wedges and spoons.

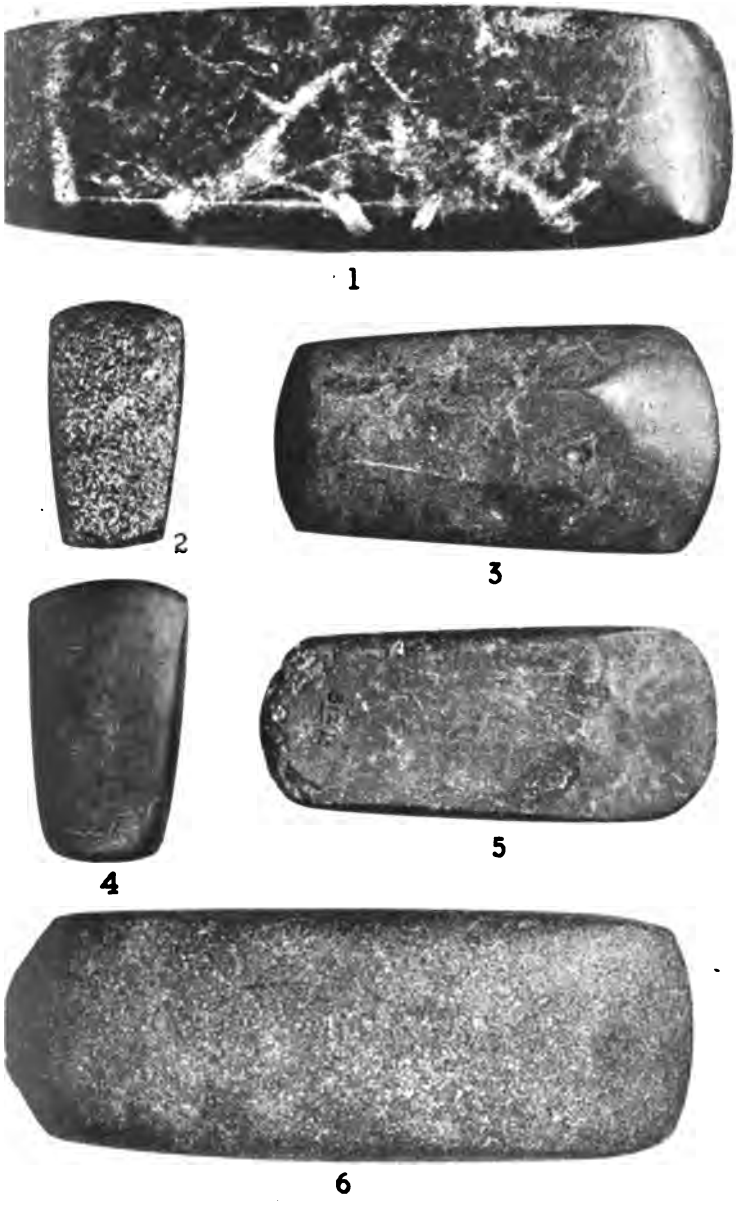
The aborigines understood a method of softening antler in order to reduce it more easily to a desired form, subsequently allowing it by some process to harden again. Partly worked antler objects, especially on Iroquoian sites, some of them relatively old, show that long shavings were cut from them. The marks of the sharp flint knife or scraper are plainly seen on others. One might suppose that these marks were caused by steel blades, did not experimentation by native methods show that identical marks can be produced by use of sharp flints. M. R. Harrington, who worked out this method as early as 1907, was moved to do so by finding long antler shavings in a refuse heap that yielded no sign of European contact.

Entire antlers were sometimes used by the Iroquois for the head ornaments of sachems, who, according to the ancient ritual, were "crowned with deer antlers."

Anvils. Anvils are usually slabs of hard rock or small flattened boulders, used as bases upon which other stones were broken or otherwise reduced. Many are found on all village sites and frequently in workshop and camp sites. Many large hammerstones show that they were also used as anvils. The backs of mortars and grinding or polishing stones also show abrasions.

In size, stones purposely shaped for flat anvils resemble metates but as any rock might have been employed as a base upon which to hammer other stones, an anvil might be of any size from that of a hammerstone to that of the largest boulder.

Anvils are seldom to be found in the amateur's collection, for the reason that they are not showy specimens. The scientific collector preserves them because of their cultural significance. They are a part of the tool kit of the aboriginal craftsman and specimens from every site should be preserved with as religious care as any of the finer specimens. It is impossible to reconstruct a vanished stone age culture unless we have a full complement of its artifacts. Perishable objects of skin and wood have rotted away. Every stone utensil is therefore of importance.



Polished adzes from New York localities. x1–2

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ttom side of adz, Van Buren; 6, bottom of double bitted granitic adz
Avon.

the bow, or so large that when it reached its objective it would rebound or at most make only a bruise. Such bruising or stunning points as are found are blunt and evidently designed for killing or stunning birds or small mammals. The second object of the arrow point makers was to produce points of a certain style, the reasons for which they had in mind. Whatever may have been these reasons, we may only conjecture, but we do know that there are numerous forms and combinations of forms.



Fig. 48 Quartz blades in various stages of chipping and revealing the process of making an arrow point. From Long Island. x⅞

In many sites the various types found are so distinctive that related sites elsewhere may be identified. By this and other means we are frequently able to trace the migrations of tribes; thus, if small triangular points prevail we may assume (in New York) that the Iroquois have occupied the site where the specimens were found. Fragments of decorated pottery would of course be strengthening evidence.

The numerous forms in which arrowheads were made make any attempt to describe all varieties a lengthy and difficult task. Not only

is there confusion as to how to classify forms but there is often no agreement as to parts described. One authority may arrange his forms by the blade point, another by the style of notching, and still another by some marked characteristic, as serration or beveling. Manifestly, for the purposes of description some standard should be applied. One of the best systems is that used by Thomas Wilson in his, "Arrow Points, Spearheads and Knives of Prehistoric Times." National Museum Report for 1897. (Consult also Moorehead, Stone Age; Beauchamp, Aboriginal Chipped Implements of New York, N. Y. State Mus. Bul. 16.)

Arrow shaft rubber. Among the rarer abrading tools are grooved sandstone cobbles or fragments of rock, having long grooves approximately the size of an arrow shaft. These implements are thought to be shaft rubbers and designed to smooth and polish arrow shafts or other spindles. These rubbers are always made of some gritty stone, useful as an abrasive. Some are of a size easily held in the hand, others heavy blocks though portable, and still others are large boulders.

Awls, bone. Long splinters of bone, and occasionally tubular bones, sharpened at one end (in some cases both ends) are termed *awls*. There are several types of awls, and types can be multiplied as various differences are thought to separate varieties. The general forms are:

1 Sharpened splinters, whether rough or polished, of various lengths from 1 to 10 inches or more. Some have rounded ends and many are highly polished by long usage. The splinter awls vary from blunt specimens in which the point starts from an abrupt angle, to points that taper gradually and are beautifully founded.

2 Shaped splinters that are entirely rounded, no angular lines remaining, these being quite rare.

3 Tubular awls with niblike points (like a pen point) and made from bird bones or the leg bones of certain small mammals.

4 Joint end awls, which as the name implies have the natural joint at the upper or handle end.

5 Jaw bone awls made from entire jaws or segments, sharpened on one end.

6 Engraved awls.

7 Perforated awls, etc.

Awls may be flat with flat, irregular or rounded edges, or they may be solid cylinders. They may be double ended, or have one end in

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Plate 110



Bone and walrus ivory implements from Jefferson county. 3-4

1 to 4, from early Onondaga sites; 5, 7, 8, 9, 10, 11, 12 from very early refuse heaps near shores of Lake Ontario. 8 and 9 seem to be ivory. Specimens mostly from the R. D. Loveland Collection in the State Museum.

the form of a punch, scoop scraper or may be notched or perforated.

It would be idle to assert that awls were used solely for perforating skin or bark. Some may have been arrow points, some food sticks, some shuttles, some pegs for holding pieces of wood together or for driving into posts, some may have been piercing tools for punching holes in the nose or ears, some may have been spikes used on war clubs, and some used for corn huskers. The awl was probably used for every one of these purposes and others where a piercing instrument was required.

Awls are found made from bone, antler and walrus ivory. Those of ivory have been found in Jefferson county, particularly on early Algonkian and Eskimoan sites. Some are engraved.

Bone awls found in American Indian sites are similar to those found in the kitchen middens of England, Denmark, Belgium, France and Switzerland. The aborigines of each continent saw in bone a convenient material for tools, especially piercing instruments.

In New York bone awls have been found in refuse heaps, in shell heaps and in graves. When found in ash deposits the action of the ashes has been preservative and has kept the original high polish of the surface.

Collectors should use care not to feel the end of awls for fear of breaking them, and when placed in the cabinet they should be laid on some soft material, such as felt or sheet cotton. Never glue the specimen to a mount.

Axes. See grooved axes. Axes are cutting blades of stone (or very rarely of native copper) designed to be mounted on a handle. There are two general forms, the grooved axe and the ungrooved axe or hatchet.

Balls. Stone balls seem to have been originally massive hammers that had been battered into spherical shape. Many such are found in the upper Genesee valley. A peculiar form of stone ball found, so far as we have evidence, in the valley of the upper Hudson, is that having small opposed pits, as if to facilitate grasping between the thumb and forefinger. It is quite possible that some of these stone balls were used in playing games either on smooth ground or upon the ice.

Banner stones. The term *banner stone* is applied to a certain class of perforated (or notched and grooved) objects having a wing of hornlike extension from a grooved or perforated midrib. Finished forms are highly polished and show few if any signs of

Plate III



Banner stones from central New York. Otis M. Bigelow collection, State Museum.

usage. They are prehistoric objects and no definite use has been ascribed to them. The central perforation suggests that they were mounted on staffs or spindles giving rise to the name banner stones, alluding to a fancied similarity between them and the ornament on the end of a flag pole. Many writers refer to banner stones as "ceremonials" or "problematical forms."

The range of form of these objects is varied but in general nearly all conform to a general type, the extremes of which merge into forms similar either to flattened tubes or to boat stones. The usual types of the banner stones are: (1) bilunate, (2) bipennate, (3) palmate, (4) lunate, (5) picklike, (6) hornlike, (7) geniculate, (8) grooved ball. Each of these forms may be still further subdivided. The bipennate form, for example, has wings of many varieties. Some are rounded, some like the ends of knife blades, some like the flaring butt of an axe, some like a butterfly's wings, and some reel-shaped. There are other common types also.

The maker of a banner stone had some definite prototype in mind as well as a specific purpose for which to make it. For example, the horned type resembles buffalo horns laced together at the bases.

The materials from which banner stones were made are usually soft, easily worked stones as marble, steatite or slate. Banded slate seems to have been the favorite material. More rarely some harder stone is employed, as granite, syenite, compact sandstone or even quartz. When made of such materials the labor of shaping the wings and perforating the midrib was one of long duration. Many of these specimens yet in process are found throughout the banner stone area.

Possible uses. The varied forms in which the so-called banner stone is found suggest in a measure varied uses of this puzzling artifact. To the writer it seems probable that the pick or horned type, the thin-winged butterfly type and the elliptically pierced type may have been intended for distinct and separate purposes.

In many instances by examination it is found that the hole perforating the body of the banner stone tapers, as if for the insertion of a tapered rod. An examination of many broken specimens clearly indicates fracturing by internal pressure. Banner stones made for experimental purposes and broken by internal pressure within the socket show fracture lines identical with those of ancient specimens. Thus it seems reasonable to believe from the form of the stone and its perforation that banner stones were designed to be placed upon rods, spindles or shafts. By placing a banner stone upon a shaft

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Plate 112



Bipennate banner stone from Sidney (W. E. Yager collection). Certain defects brought about the attempted reduction in size, indicated by the incision near the top. (Size x $\frac{1}{4}$.)

and studying its poise and the use it suggests, we may arrive at some approximation of the actual purposes of the implement. In conducting our investigations, therefore, we placed a thin-winged banner stone on the rear end of a javelin shaft to see what effect this would produce. We found by experiment that an ordinary spear shaft headed with a sharpened flint does not fly with precision but rotates to a perceptible degree at the point of balance, causing both point and tail to describe circles, the circumference of which depends on the degree of rotation and the length of the shaft. Thus, a spear does not fly with absolute precision. To be of correct form for throwing we discovered that the shaft must have a certain taper. The taper offsets to a considerable degree the rotation of the extremes and has a well-defined mechanical effect on the shaft. A well-tapered rod can not be thrown small end foremost; if this is done it will turn in midair and proceed large end foremost.

Using a well-tapered shaft 5½ feet long and 1⅛ inches in diameter at the head and about one-half of an inch at the tail and placing a banner stone upon the tail, we conducted experiments in javelin throwing. It was found that the thin wings of the banner stone acted in a similar manner as the feathers do to an arrow. The javelin thus arranged could be thrown with greater precision, with greater poise and at least one-fourth farther, than a shaft without the banner stone. Although the banner stone consumed a certain amount of additional propulsive force, yet the advantage was so great through the addition of poise that the projecting force was not expended in keeping up the wabbling flight. Besides giving poise and adding distance the banner stone gives the additional advantage of greater weight, greater impact and greater speed.

It would seem that objects of so brittle a substance would not stand the use of throwing. The author, however, having made one of soft steatite threw it more than fifty times in an ordinary field with no breakage, except a slight one caused by the incomplete insertion of the shaft. When this breakage was sustained the stone was placed with the wide end forward, although the reverse seemed to be the proper method.

The banner stone thus employed on the spear shaft does not break because the shaft strikes the ground at an acute angle and if it does not strike into the ground it has but a slight distance to fall.

By placing a shorter shaft in the hole of a banner stone another experiment was conducted. The pick-shaped banner stone resembles in miniature the war club of the modern Sioux and it will be noted that many of these decorative clubs had comparatively slender handles. By pushing the spindle through the banner stone for some

distance so that 3 to 5 inches protruded we find by handling the arrangement that there is a tendency to whirl the shaft, the weight of the banner stone making the combination spin like a stem-heavy top. This gives rise to the idea of its use as a spindle whorl for fire making and drilling. In our experiments we used nearly every type of banner stone with equal success and all forms of drilling, were used including the pull string, strap bow and pump. The thin-winged forms were especially efficient, the air resistance giving weight and steadiness to the rotating shaft. This is so apparent that a pump drill worked on a smooth surface, in conjunction with a banner stone used as a fly-wheel, keeps the shaft rotating upon one point.

The use of the banner stone upon a spindle must have been apparent to the banner stone maker. A simple twist of the spindle would reveal its possibility as a whorl and with this discovery its use would be suggested. We can not see how the aborigine of the polished stone age could have neglected to employ the banner stone as our experiments suggest.

This subject leads us to inquire into the prototype of the banner stone and to discover the reason for its various forms. The wings of the artifact suggest in some ways the wings of a flying bird, other forms suggest the ears of an animal sewed together or maple seed pods, while still others plainly represent horns. Our knowledge of the Indians' veneration for the thunder bird and indeed their regard for the assumed magical qualities of birds, suggests the possibility that the banner stone wings were the heavy portion of an effigy designed to represent a bird, which was fastened to the spindle or shaft. The horned type of banner stone might represent the horns of a buffalo or some mythical monster that was believed to emit fire or to symbolize power. The horned type of banner stone in a considerable number of specimens has upon the surface at the centrum certain cross hatches or incised projections which suggest, to the writer at least, an attempt to represent horns laced, sewed or tied together. Any student of Indian mythology will quickly recall the many legends of horned monsters, especially serpents.

Among the uses of the banner stone heretofore suggested is the theory advanced by Frank H. Cushing, which describes the banner stone as used on the stem of a calumet to prevent it from tipping over when placed upon the ground. Within our experience we have not seen banner stones associated closely with pipes, although platform pipes are found many times on the same sites yielding banner stones. We have not learned, however, of a banner stone and pipe from a grave that would bear out this theory.

An interesting specimen in connection with this theory occurs in a highly decorated form of pipe in the State Museum collection. The pipe is of brass of European origin. About the bowl of the pipe extending from the neck-base upward is a large crescent-shaped object perhaps intended to be a moon effigy or more remotely a canoe, though the crescent is too thin to resemble one closely. On one side of the crescent is a figure of a man with an arm extended and holding a shaft having a weighted bottom. The pattern has been cut out and riveted on the crescent. In form this adjunct to the pipe somewhat resembles a banner stone, but we do not believe that the maker of this pipe was ever familiar with banner stones or knew of their actual use. This pipe of brass, which has a wooden core and stem, has an earlier prototype in certain forms of prehistoric Onondaga clay pipes the bowl of which is extended forward and backward to resemble a canoe.

Another use of the banner stone is that of a helmet ornament suggested by certain human figures embossed on sheet copper from mounds. There is some merit in this conjecture when a study is made of the elaborate head dresses of the mound-building period. The Sioux and other Indians within modern times have decorated their heads with horns and the Iroquois cap had a spool-shaped socket at the crown in which an upright feather was placed in such a manner that it would revolve.

Possible prototypes. In connection with our studies of the banner stone as a whorl we have examined the drill spindles of various races in several of the larger museums. We find that the headpiece of a drill spindle employed by the Eskimo, for example, resembles in certain ways the knobbed or blunt-ended banner stone of the horned type. The headpieces are rather more neatly made than the remaining portion of the drill among the Eskimo. The Eskimo top pieces are frequently carved of bone and have at their upper portion (that curve to fit the mouth) wooden projections which are used as handles and held in the teeth. On the lower side is the socket in which the top of the spindle is inserted. One of these headpieces worn through by long use and pushed down over the shaft would quickly suggest a new use. The possibility of wearing through is not remote because the holes were drilled in the bone to a considerable distance in order to prevent the slipping out of the spindle. Indeed to prevent the rapid wearing into the bone or ivory the Eskimo even recently mortised into the headpiece small pieces of rectangular stone into which the hole was drilled. Not all headpieces take a similar form and there is a large individual variation.

In general, however, the headpiece was curved upward so as to fit against the mouth, which gives a crescent or boat shape to many specimens.

The utility of such an object as a whorl, once discovered, would bring about many further variations and new outline motives would be employed. Dr George Byron Gordon in his study of banner stones suggests that certain forms were derived by the lines suggested by a whale's tail and we see no reason why this idea should not seem plausible though tails of other aquatic creatures may have been likewise copied.

Our conclusion is that the banner stone is a portion of a more complex utensil or ornament and was designed to be placed upon a shaft or spindle. The manner in which this was done and the purpose is suggested by the experiments described. We can by no means be certain that any of these suggested uses were employed, but likewise we can not positively say that none of them is valid, especially in the face of the presumptive evidence we have advanced.

Process of manufacture. In the State Museum collections are about twenty banner stones in the process of manufacture. We are able through an examination of these articles (specimens of which are found in almost every stage of the process of manufacture from the crude block of indeterminate form to the finely polished specimen) to describe in a measure the various stages in the making of banner stones. The unfinished forms are usually not of slate which was easily worked and quickly finished, but of compact shale, schist, sandstone or granite. The material out of which this series is made is tough rock not easily worked or perforated.

The first process, after a suitable material had been found, was to chip the implement into shape, outlining the wings and centrum. With the exception of the central bulb from which the wings expand and the indentation on the upward curve, all these heavier specimens in form are kidney or bean-shaped. The second process as indicated by our series was that of picking or pitting, the third process that of scouring or grinding and the fourth finishing the polish. A set of these specimens also indicates that the hole or perforation was started in the centrum on the upcurving side. Preparations for the perforation was also indicated on specimens which have merely been blocked out, by a picked-in indentation. It would seem therefore that the shaft which we postulate was placed in the centrum, was inserted first at this point. It may be possible that the shaft was sometimes placed in the unfinished specimen.

Incomplete banner stones have been found throughout the State from Lake Champlain region on the north to Staten island on the south and westward through the Mohawk valley to Chautauqua county. Other specimens are reported from the St Lawrence valley but a greater majority have been reported from the Finger Lakes region of central New York and from the valley of the Genesee and its tributaries.



Fig. 49 Bar amulet from Bigelow collection. Seneca river near Baldwinsville. x⅔

Bar amulet. This name is applied to a polished bar of ornamental stone with a diagonal drilling from either end to the base. The body of a bar amulet is much like that of a bird stone, the bar having two tails instead of a head and a tail. The term *amulet* as applied to this article is only conjectural. No one knows that it is an amulet. For illustrations, see plates 24 and 113.

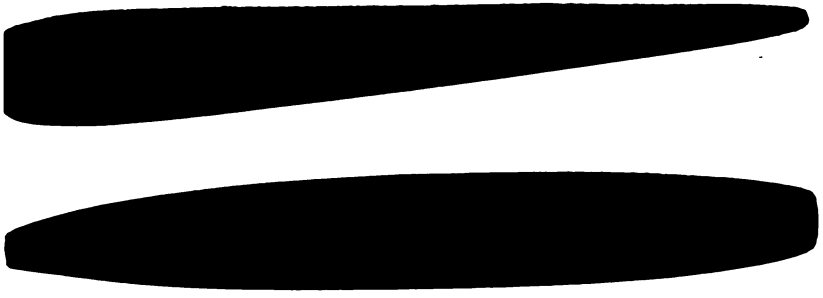


Fig. 50 Stone chisels or bar celts. 1. Unadilla; 2 Port Dickinson. x¾

Bar celt. A long shaft of slate or other compact stone edged on one or both ends as a cutting blade. The term *bar* describes the general appearance of the implement which, however, tapers from the middle to each end. Bar celts are generally rounded over the back and rather flat on the bottom; one end may be edged and one shaped like a blunt pick. In length they vary from about 10 to 20 inches. The material in most cases is compact black slate, though specimens of syenite, limestone and sandstone are found. Bar celts

occur in Tennessee, Ohio, Pennsylvania and New York. In New York at least two specimens have been found in Iroquois graves and others in Iroquois sites.

No use has been yet ascribed to the bar celt and its purpose is problematical. The long, flat underside may indicate that it was fastened to a piece of wood the same width and used as the spike of a warclub. (See plate 88, Fig. 4.)



Fig. 51 Banner stones of compact, hard rock, partially drilled, drilling is nearly always started on the wider portion

Beads, bone. Cylindrical sections of tubular bone, of various sizes and lengths, are termed bone beads. They are found in all stages of completion, from the initial incisions on the tubular bone, through specimens of partly cut beads, rough ended cylinders, and finally to fully polished forms. The smaller tubes having lengths of from one-half of an inch to 4 inches were probably strung as beads on necklaces. Larger tubes cut from heavier and flatter bones probably had other purposes. Deposits of ten to thirty of these have been found in graves. Some have been filled with pigments and others with black substances not possible to determine. Some of the smaller tubes also seem to have been used in other ways than as beads. Inquiry among the Seneca brought forth the information that polished bone tubes were used to hold certain medicines and greases and that medicine men would ceremonially select one, "put it in his mouth and swallow it to kill the disease of his patient."[1] The Ojibwa have a similar practice, related by Miss Densmore, in her work on Ojibwa music.

[1] Related by M. Shongo, a Seneca medicine man.

Bone beads are particularly numerous on Iroquois sites and literally hundreds have been found. The Museum has more than three hundred from the Richmond Mills site, Ontario county.

Bird stones. A certain class of polished slate and other stone objects, having in general a barlike body with an expanded and upward flaring tail and a neck projecting upward supporting a forward-pointing head, and having a perforated base. Occasionally there is only a neck and head rising from an ellipsoidal base. The body of the bar bodied bird stone is perforated diagonally from each end downward into the base. Certain forms have knoblike projections from the head to resemble eyes. Some bases are slightly curved inward and some have ridgelike transverse bars, as if they had fitted into slots.

Bird stones are usually made from banded slate or other attractive stone, but many other stones were used. Some specimens are made of hard rock. But of whatever material they are formed, all show careful workmanship and evidence that they were much esteemed. All finished specimens show a high polish.

Bird stones show much variation from the average bird form. They range from this, backward to simple bars with arched backs; and forward to specimens having either high, long necks and extended beaks or wide-flaring tails, or both these features. Some bird stones resemble floating ducks, other swimming beavers, but of whatever form they may be, all except the simple bars seem to resemble aquatic creatures.

Bird stones are found throughout New York State wherever there is evidence of the Algonkian or the mound occupation. None is found on Iroquoian sites.[1] The greater number have been found in the counties of Chautauqua, Cattaraugus, Erie, Ontario, Livingston, Yates, Cayuga, Seneca, Onondaga, Jefferson, Clinton, Warren, Saratoga, Montgomery. Some have been found along the upper waters of the Susquehanna and the Delaware. The area in which they are found is not large, few being found west of the Mississippi, except perhaps in eastern Missouri, just west of the mouth of the Ohio, few south of northern Alabama, and few east of the Appalachian range. For forms of bird stones, see plate 113.

Consult Moorehead, Stone Ornaments; Wilson, Prehistoric Art (National Mus. 1896); Beauchamp, Polished Stone (N. Y. State Mus. Bul. 18).

Possible uses. There is no known use of bird stones. The article suggests that it was fastened to some other object by means of

[1] Except intrusively.

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Plate 113



Bird stones and bar amulets from central New York. Otis M. Bigelow collection, State Museum

thongs run through the holes that slant from the ends into the base. This object may have been a helmet or headdress; it may have been the wooden base of a roach spreader worn in the middle of the crest of hair. The bird stone may have been the body that supported a duck or other bird effigy on the stem of a calumet, it may have been a fetish used on bundles of arrows (a Navajo custom), or it may have been a canoe ornament (the Eskimo having a similar object made of bone). Again the bird stone may have been used in certain games as, for example, on a snow snake for an ornamental weight, or it may have been used on a float used as a fishing bob, to insure success in fishing. Another theory is that they were placed on canoe paddles.



Fig. 52 Bird stone of schist found by W. L. Stone, Saratoga. 2-3

One observation concerning bird stones is worthy of attention. The basal perforations and the transverse bars sometimes found indicate that the bird stone was fastened or tied to some thin object and that the thongs that fastened the object ran through the resting base, and under it. If a bird stone were tied to the cover of a birch bark box or to a thin section of wood or leather the method of fastening would at once be clear.

Schoolcraft thought bird stones were parts of the handles of knives and indeed they do bear a resemblance to certain Labrador forms made of wood.

Blades, bone. These are flat, smooth pieces of bone with rounded or spatulate ends. Many are highly polished as if they had been used in smoothing other articles. We saw a bone blade in the hands of a Seneca woman as late as 1912, and used as a porcupine quill flattener, the quills being used for embroidery. Some no doubt were potters' tools. Bone blades are more commonly Iroquois than Algonkian, though some have been found in Jefferson county on Algonkian sites. Some are engraved.

Boat stones. A name applied to perforated boat-shaped stones of polished slate or other soft stone. The perforations are placed in the middle of the object at a short distance apart (about an inch) and equidistant from the ends. The under side is more or less deeply

Plate 114





Bird stones. 1, from Ontario county; 2, from Allegany county. G. L. Tucker collection.

hollowed out varying from a slight depression to as complete an excavation as the stone would allow.

New York forms may be divided into three types: (1) the arch-backed bar more or less deeply excavated; (2) the hump-backed bar sometimes having a grooved ridge projecting above and between the perforations; (3) blunt or flat-ended canoe-shaped forms deeply hollowed and having the back bounded by a curved plane.

Boat stones are usually made of striped slate or some similar soft material. In the south some have been found made from steatite. Boat stones are associated with the gorget and banner stone culture, and are undoubtedly prehistoric. Specimens are fairly rare compared with banner stones, for example.

Uses. During the past few years several important boat stones have been discovered, which shed a certain amount of light upon the purpose for which these artifacts were intended. The excavations of Mr Clarence B. Moore along the Harpeth river resulted in the discovery of wooden ornaments like boat stones, which when placed together resembled milkweed pods. The pod was filled with a mass of fiber in which small pebbles were embedded. It has been thought that these pendants resembled milkweed pods and the fiber and pebbles the seed and seed-down. These wooden objects have been preserved by their copper coating.[1] A recent discovery was made by William C. Mills in the mound in Ross county, Ohio, of copper boat stones filled with pebbles. In conjunction with the podlike ornament found by Mr Moore, this might lead one to think that a boat stone was the remaining portion of a similar hollow or podlike pendant or rattle, the other portion of which had been wood or some other perishable substance.

Our conclusions regarding boat stones would be that they are the survivals of more complex arrangements of which the boat stone represents the only durable portion.

Bone, uses of.[2] Bone was an important and useful material to aboriginal man in New York, as well as elsewhere. It was comparatively easily worked and was suitable as a material for numerous implements. The bones of various animals and birds were used, particularly those of deer, elk, moose, bear, buffalo, duck, turkey, goose, heron and other large water birds. From the bones of the larger mammals there were made awls, spatulate blades, gouges, arrow points, pottery markers and stamps, harpoons, spearheads, fish hooks, needles, shuttles, spikes, phalangeal cones and other devices,

[1] See Moore, Aboriginal Sites on the Tennessee River, p. 263–65.

[2] Consult also Beauchamp, New York State Mus. Bul. 50.

and many other objects and ornaments as effigies, carvings of faces, dice etc. From the smaller birds and animals the long bones were taken and cut into tubes, tubular beads and other objects. Jaw bones, especially of the deer, were used for many purposes. A complete lower jaw with the teeth, but perhaps the hinge projection cut or broken off, was used as a corn cob scraper. (This fact was first published in Bulletin 144 of the State Museum, and subsequently copied without credit in many other archeological publications.) The toothless anterior portion of deer jaws was cut into beads, pendants, notched ornaments and even awls. Troughlike awls were cut from the bottoms of deer jaws. From the feet of wolves, dogs, foxes, bears, deer and other animals the two larger phalanges were used for parts of games, for cones, ornaments etc. The teeth of various animals were commonly used (see *Teeth*). Plate 96 shows some of the uses of bone.

Caches. The term cache is applied to places where implements of aboriginal manufacture have been stored or hidden. Caches are generally found in the ground beneath the surface, under Indian rock piles or in springs. Generally the only articles surviving storage are blades of unfinished flint implements, known as blank blades. In many cases they seem to have been covered with a pigment of red iron oxide, which still remains on the specimens when they are uncovered. From three to three hundred blades have been found in New York caches, and so constant are the few simple types that collectors recognize what they term "cache blades." They are usually leaf-shaped, or have the base straight.

Implements stored or secreted in the bottoms of springs or thrust into the earth above them may have been cached or given to the spirit of the spring as an offering. The finding of numerous articles of flint in springs has some unusual significance. By some authorities it is thought that flint and jasper blades were stored in the earth in order that their chipping qualities might not be impaired through loss of "quarry water," that is, the residual moisture. This might account for the storage in springs. In most cases cached blades are neatly piled in regular order, layer on layer. This indicates that time and care were expended in making the deposit.

The largest caches of flint blades have been discovered in Missouri, Arkansas and Ohio. One Missouri cache recently found contained innumerable blades of all sizes. The collection was literally hauled away in wagon loads. The first great cache recorded by archeologists is that found by Warren K. Moorehead near the Hopewell mounds in Ross county, Ohio. Buried in one heap there were 7382 large blank forms.

In New York interesting caches have been found in various localities. One was discovered by George Harris of Rochester near the bluffs on the west side of Irondequoit bay. There were several hundreds of leaf-shaped forms, with straight bases, all covered with a red pigment. Caches of jasper implements have been found along the Seneca river, on the Susquehanna near Oneonta, and on the west bank of the Hudson near Catskill. Caches of flints are reported from the Allegheny county forts, from Warsaw, Wyoming county, from Binghamton, from Dutchess county and from Saratoga county.

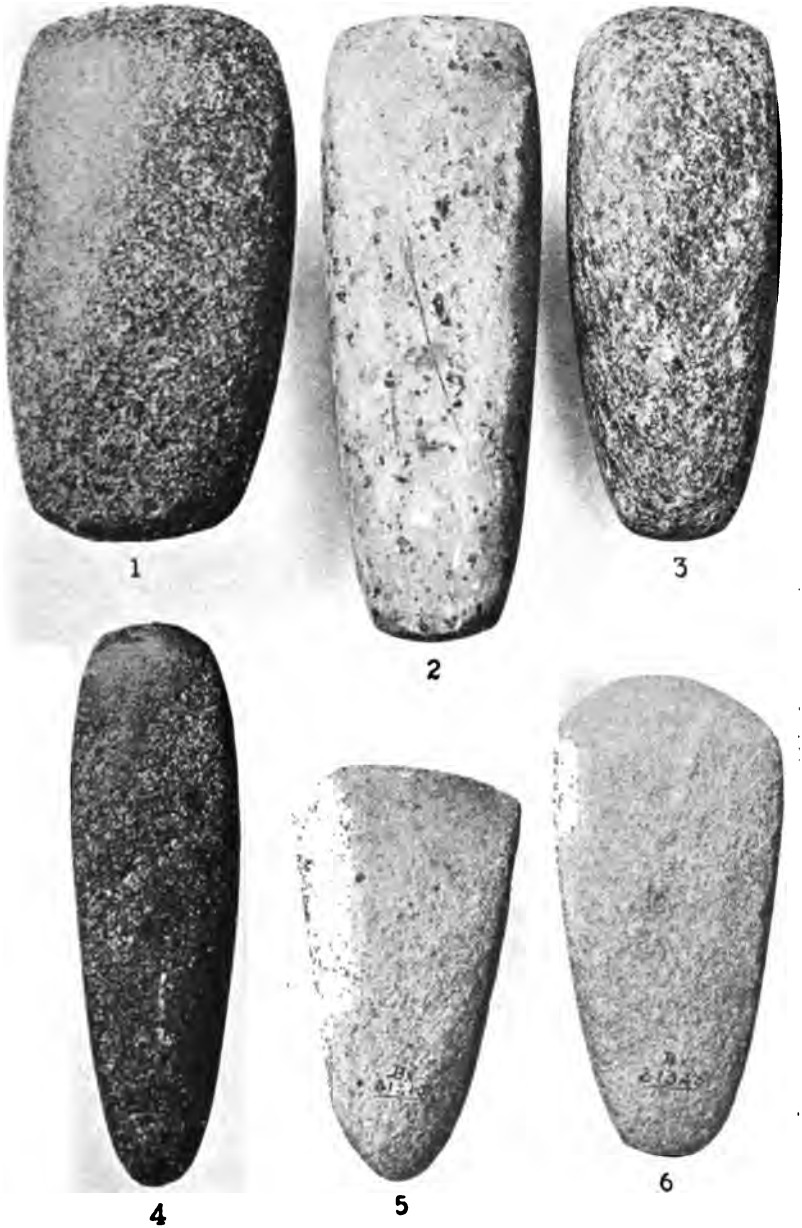
Collectors should take care to keep all cache blades together, preserve the pigment covering, if any, and before removing the blades from the hole where found, make accurate observations as to the depth of the deposit, the manner in which the implements are piled and the way any dieffrent kinds were grouped together. Groups of specimens found in caches are units and should be kept as such, none being given away, traded or sold.

Celts or hatchet heads. The term celt is derived either from the Latin *celtis* meaning a chisel, or from the Welsh *cellt* meaning a flint stone. Celts are ungrooved hatchet heads and in several instances have been found in the original handles, but it seems probable that some were used without hafting. Adzes, that is, celtlike blades with a flat under surface, are considered in another place.

Celts constitute an almost universal type of implements and are found in every region occupied by stone-age man. So similar in form are specimens from widely separated localities that it is difficult to distinguish certain universal types when the labels are concealed.

In New York State celts are particularly numerous and there are very few sites that yield artifacts that do not contain celts or parts of them. It thus appears they were a common and necessary part of the red man's tool and weapon outfit. With these utensils it was possible to cut soft wood, particularly if the wood had been charred by fire. Indeed it is thought that the chopping process was seldom accomplished without the aid of fire, the celt or hatchet being used to remove the burned wood and give a fresh surface for the flame. As a weapon the celt would serve admirably, but a little experimenting will show that a heavy club, particularly if spiked with a prong of antler or long point of flint, would be much more effective. Certain celt heads may have been used only in the hand and without handles, others may have been bark peelers, chisels and wedges. The term "skinning stones" is perhaps the poorest term that can be applied, but it is a widely known one and is probably used by the uninformed because hunters, farmers and some modern Indians

Plate 115



Types of celts, which occur in many forms. Onondaga county. Scale, ½.

have found a polished celt or hatchet head convenient in removing the skin from an animal.

New York celts are found in numerous forms, lengths and weights. In general, however, they may be grouped in certain forms, each of which may be still further divided by longitudinal cross section. For example, a petaloid celt may be thin, normal, thick or bulbous. Again its outline may be bounded by flat, curved surfaces, beveled surfaces or rounded surfaces. The cutting edge may be acute or obtuse, curved or straight. The general forms of celts are shown in plate 115.

There are so many interesting features about these cutting blades that the celt is a subject for a considerable treatise. The celt reveals as well as any stone implement the craftsmanship of the aborigine, and it speaks as eloquently of his idea of form, symmetry and beauty of finish as it does of his idea of and need of a cutting or chopping implement. The celt suggests through the marks found upon it the manner of its manufacture and thus unlocks the door of the stone age workshops.

The block from which a hatchet, gouge or adz was made, was either a natural pebble of hard stone and suitable shape, or a large flake broken from a boulder or from a quarry ledge. This rough block was the first stage in the formation of a celt. The second process was to batter the rough block to the approximate form by chipping. When chipping could no longer continue the third process, that of picking or pitting, was commenced. This was done by two general methods; first, actual picking by sharp flints; second, by a continuous process of percussion, that is, battering with hammerstones. In this manner the surface of the stone became powdered and worn down. Actual experiment shows that a sharp blow breaks up the stone where struck leaving a pit filled with stone dust. The process is laborious but if worked at continuously need scarcely take a week. Few if any stone axes or hatchets were "the work of patient years." In the fourth stage the picking process is completed and the cutting edge of the celt is ground down with some abrasive. In the fifth stage the edge is polished. Many good and serviceable celts were regarded as complete in the fifth stage. The pitted surface no doubt was convenient for gripping by hand or by handle, and was thought decorative. The sixth stage finds the celt polished over its entire surface except perhaps its butt. Many of the finest specimens have unfinished butt ends.

Many celts are so well balanced that they rest upon a single point and curve in all directions.

Chalcedony. This mineralogical term embraces most of the varieties of tough, siliceous rock used for making chipped implements and includes flint chert, hornstone, jasper, agate, novaculite in part, onyx and carnelian. As a rule the terms employed by archeologists differ from those used by mineralogists, due to the necessity of describing certain forms of minerals found in implements. With archeologists, chalcedony is a light yellowish or cream-colored translucent variety of siliceous rock having a hornlike luster. It is similar to the archeologist's jasper but not of the same color. The mineralogist, however, will insist on another description. Chalcedony is formed by the infiltration of siliceous substances from fossil-bearing rocks, into dikes or cracks in the older rocks, or it may occur in nodules or layers in sedimentary rocks. The material found at Flint Ridge, Ohio, and used in the making of innumerable implements by the aborigines of that region, is called by archeologists chalcedony.

Chert. A variety of flint or chalcedony (*q.v.*), much used for making chipped implements. (See *Flint.*)

Chipped Stone Implements, Method of Manufacture. The most numerous articles in any considerable archeological collection, in our region at least, are those of chipped stone, popularly termed flint implements. Many of these implements are worthy of study and description.

To the uninformed a gracefully shaped and delicately chipped Indian arrowhead represents the product of a wonderful lost art. It seems almost impossible that the beautiful specimen could have been made by an Indian possessing only rude means of making anything. It is an erroneous idea, however, to suppose that the American who centuries ago made such an arrowhead was untutored or ignorant of the best possible tools needed for flint chipping. In many instances with the tools which we call rude he produced a better, finer specimen of stone chipping than could a modern lapidary with all his modern appliances.

Some hard-cutting material is a necessary adjunct to the progress of any people, primitive or enlightened. Since primitive man was not acquainted with the use of metal, it is natural that he should utilize stone, which was abundant everywhere. The use of sharp pieces of naturally broken stone probably led him to break stones, and using such pieces for cutting suggested other uses by modifying the form.

Early man in all probability used natural pebbles as throwing weapons, and natural clubs of wood for striking. His use of pieces

Plate 116



Chipped quartz from Long Island, showing the various stages in the manuacture of an arrow point

of wood for thrusting suggested the spear-shaft, and his experience with cutting stones suggested the spearhead, with which he could more easily kill game or provide himself with a weapon of defense or attack. The game killed required a knife for dressing it and sharp tools were necessary for scraping and cutting skins for garments. Cutting tools were also essential in shaping soft stone into pots, for making wooden vessels, for cutting trees, making bone implements and drilling holes. The pressing need of early man for so many things gave rise to the art of stone chipping.

Although many relics of the ancient American remain in the soil all about us, the ordinary observer passes by unnoticed the pottery fragment, or the bone implement, and picks from the ploughed field or water-washed bank the arrowhead which excites his greater admiration.

The first requisite for making a good chipped implement is appropriate material. The stone must be hard and have conchoidal fracture. It must chip at an acute angle to the medial plane of the mass. The less the angle, the more workable the stone. Flint or chert, quartz, jasper, chalcedony, obsidian, felsite and argillite are all types of stone having a conchoidal fracture.

To chip properly, the stone should be obtained from a moist place, such as the sea or lake shore, the damp earth, or from veins of rock below the surface exposure.

Large pebbles were used and larger masses quarried and broken into fragments. These fragments, chipped roughly into blank forms or "blades," were carried into camp for completion. Concerning the quarries of the ancient American, Dr W. H. Holmes, in "Arrows and Arrowmakers," the American Anthropologist for January 1891, says: "In Arkansas there are pits dug in solid rock — a heavy bedded novaculite — to a width of 25 feet or more. In Ohio and other states similar phenomena have been observed. In the District of Columbia extensive quarries were opened in gravel-bearing bluffs, and millions of quartzite and quartz boulders secured and worked. The extent of native quarrying has not until recently been realized. Such work has been considered beyond the capacity of savages, and when ancient pits were observed, they were usually attributed to gold hunters of early days, and in the south are still known as 'Spanish diggings.' From Maine to Oregon, from Alaska to Peru, hills and mountains are scarred with pits and trenches. The ancient methods of quarrying are not known, and up to the present time no tools have been discovered, save rude stone hammers, impro-

vised for the purpose. Picks of bones and pikes of wood were probably used."

Flint Ridge in Ohio and the Fort Erie, Ontario, quarries are fairly well known. I do not find, however, that any mention has been made of the numerous aboriginal "flint" quarries in Pennsylvania except by A. F. Berlin in Moorhead's "Prehistoric Implements," page 187. There are about two thousand such quarries alone in Lehigh and Berks counties, Pennsylvania. Specimens of the material from these quarries are to be found in the Wren collection of Wilkesbarre.

To determine how arrowheads and other chipped implements were made, it is only necessary to watch the process among modern Indians who still remember the art. There are also several good descriptions contained in books by travelers, among them Catlin. The Iroquois generally have forgotten the art and inquiries will bring but meager information. A few, however, remember the fundamental principles but the majority look upon an arrowhead or spearhead of flint with as much wonder as does the ordinary Yankee farmer.

In the description which follows I have combined previously known facts regarding the chipping of flintlike stones with other facts gleaned from a series of experiments conducted by myself under the direction of Prof. F. W. Putnam, in the American Museum of Natural History. These results were embodied in a paper which has never been published. Much of the description which follows later is taken from this paper. In the description of the various processes the reader must understand that where positive statements of methods are made that these methods were those used in experiments and are in accord with methods known to have been used.

The tools used in shaping arrowheads were few and simple, consisting merely of a stone hammer and a flaker. For larger implements a stone anvil, a pad of skins, and a pitching tool were used in addition. The flaker was one of the most important tools in the process and with it the most delicate work was done.

In making an arrowhead the arrow-maker chose, for instance, an oval pebble measuring approximately 4 inches in length, 2½ inches in width and three-fourths of an inch thick. He held the pebble in his left hand, palm downward, the pebble projecting about an inch over his thumb. The hammer was held in his right hand, palm toward the left (see plate 117). He struck a quick, smart blow on the projecting edge of the pebble at the point indicated in the figure.







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held in his right hand, palm
struck a quick, smart blow on
e point indicated in the figure.

Plate 117





Method of flaking quartz or flint arrow points. With a hammerst
the pebble or large flake is roughly shaped, then with a bone flaker prop
pushed or pressed against the edge, chips are flaked off and the point rap
finished. A good point can be made in from 5 to 15 minutes.

A large chip flew off, starting at the point of percussion, and running on the under side, gradually thinning and widening as it progressed. This operation was repeated all around the stone. Then the chipped pebble was reversed. The chipping having been successful, the portion chipped away on one side of a surface met that on the other side of the same surface, and the edges became sharp. The flaker (plate 117) now came into requisition. It was a piece of deer antler, or perhaps of bone, as either would answer, and had a roughened surface. A point near the end of the flaker was pressed against the sharp edge of the stone so that the flaker was indented (see plate 117). The pressure of the flaker was against the stone and upward, while the stone was pressed against it and downward. A quick turn of the wrists inward and downward brought off a chip. In this way the arrow point was given definite outline. That bone or antler should be the chief instrument in flaking stone seems at first strange, and yet it was the most important factor in the process. An antler pitching tool was useful in taking off long flakes.

In the manufacture of a large spearhead, the pebble, which is too large to be easily held in the hand, was placed upon the pad of skins which rested upon the stone anvil, the object of this pad being to provide a yielding base; this also was one reason for holding the smaller stone in the hand. The notches in the arrow point were made by making a small chip at the proper place, reversing the blade, and chipping again until the notch was "eaten in." Large stone chips required only the use of the antler or bone flaker to transform them into shapely points. Often many hundred unfinished chipped blades were made and stored in the earth, afterward being dug up and baked into any shape that necessity required. It was formerly believed that cache blades were buried for safety only, but it is now understood that they were also placed in the damp earth to absorb and retain the moisture that keeps the stone elastic and easy to flake.

It must not be supposed that the arrow-maker was successful in finishing every blade. Often a blow would cause an abrupt fracture or take off too large a chip. This all depended upon the character of the stone and the skill of the operator. Unsuccessful attempts were cast aside and are technically called "rejects." Many hundreds of these may be found on old Indian quarry and camp sites.

The usual chipped implements are the knife, spear point, arrow point, drill and scraper, each kind of implement varying in size and form. The drill is long and narrow, having rough but sharp edges, generally broad at its base, and was used to perforate soft stone, bone and wood. It was sharpened automatically, for as soon as an

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ning and widening as it pro-
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edge became dulled the increased resistance caused
that it was drilling to act as a flaker and compelled a fl
thereby giving a new edge. The scraper was made
chip, flaked so as to be bevelled on one side like a c
scrapers were made from broken arrow and spear po
sometimes fastened to a handle and used to scrape wo
skin. The different forms of spearheads and knive
points grade into one another, often making it impos
the exact use of a particular specimen. Perhaps they
a considerable extent interchangeably. Knives were of
the chief characteristics being the finely bevelled, sharp-
Some were made so as to fit into a handle and others
the hand. The spear was much longer than the arro
designed to be fastened to a shaft. Spearheads or spear
among the most beautiful specimens of the chipper's
have been found in abundance on sites of great antiquity
the theory that the arrow point is more modern than the
arrow point could be used only in conjunction with a th
or with a bow, and there is every reason to believe tha
was evolved from the spear.

The arrowhead appears in as many varied forms as
accident could create. It was made from stone, colore
hues nature produces — red, pink, yellow, blue, green
white — and often from quartz crystal. Different peop
tain extent had different styles and individuals often the
ticular "brand." The arrowhead was made for all the v
which a missile of its kind could be put. Special arrow
used for large and for small game, for birds, for fish a
but to venture to define these would be simply guess
ingenious device was the bevel head. The cross sectio
head is rhomboidal. For a long time it was thought th
was but an accident in the method of flaking, but I a
experiments made at the Smithsonian Institution are
shown that the bevel head flies with a rotary motion, s
only goes more directly, but on striking an object liter
hole into it. This seems to require further investigatio
The "fishing point" is long, narrow and slender. It v
to be shot into the water at the fish. The small points
from small chippings with a small flaker. War points
to have been fastened loosely to the shaft so that they
pulled out of the flesh, even though the shaft were withd

arrowheads, or "bunts," were used to hit objects without penetrating them. Such bunts were often made of broken points reflaked.

The arrow has ceased to play an important part in hunting or warfare, the bullet having superseded it. The bullet, however, is the evolution of the arrowhead, its mission is the same, and the principle which governs it is the same. Ancient as well as modern man was aware that a small, heavy object, swiftly propelled, could go where a larger one thrown by hand could not go, and that it would do more damage.

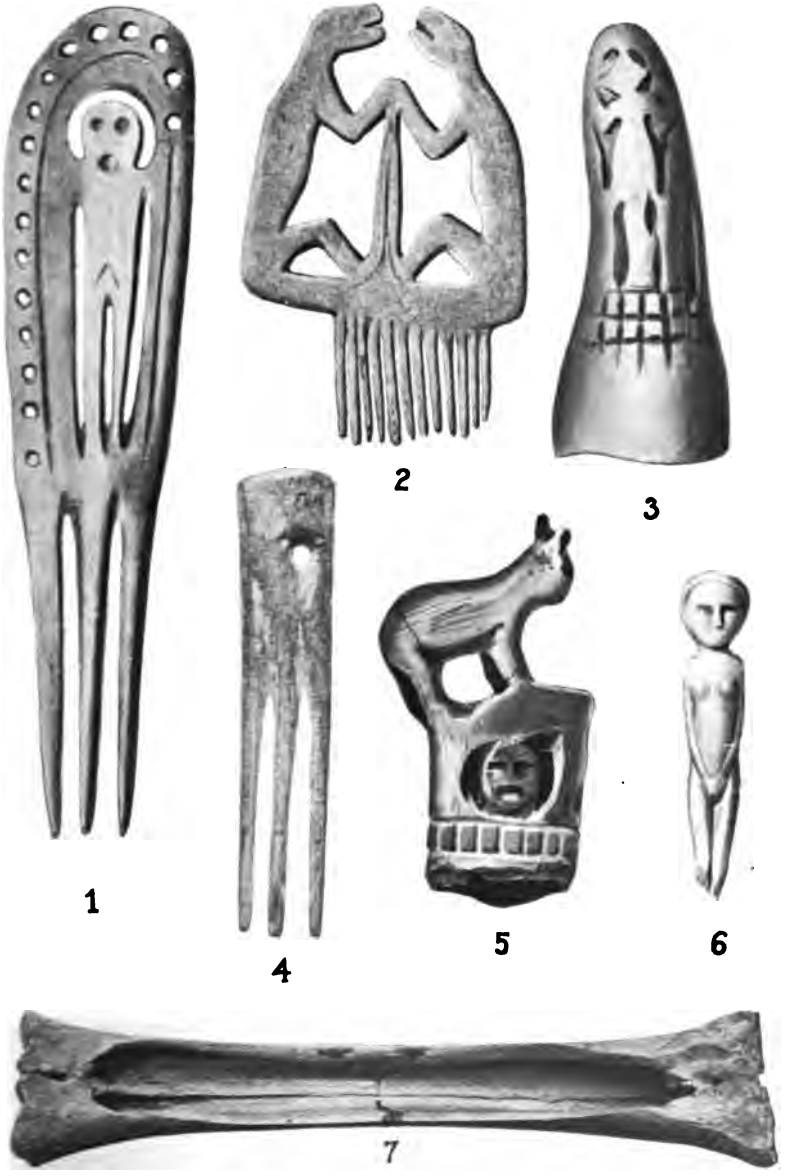
From the hand spear to the arrow, after the bow was known, was but a step; then came the cross-bow and bolt; then the rude musket and bullet. The bullet, being heavier and propelled more swiftly, needed no shaft, nevertheless it is but an arrowhead in another form.

Choppers. In several New York localities, especially along the coast, elongated or oval flat pebbles with one edge chipped are found. The chipping is generally rough and may be on one or both sides of the stone. These objects are thought to be rude hatchets or hand choppers. On coastal sites they are usually made of quartz. Farther inland they are found made from a variety of materials, such as chert, limestone, compact slate, etc.

Collections. See Specimens.

Combs, antler. It has been stated that bone combs have no great antiquity, yet three-toothed and four-toothed bone combs have been found in several prehistoric Iroquois sites in New York. These articles are comblike, in the sense of having long heavy teeth, but they may have been hair or scalp lock ornaments rather than instruments for straightening out strands of hair. The earlier types are narrow and resemble coarse forks with long prongs and long bases. The base may be plain, incised or decorated by fretwork in the form of animals, birds or combinations. These early forms have been found in sites at Pompey, Cazenovia and Watertown in the Onondaga-Oneida area, at Richmond Mills in the Seneca area, and at Ripley in the Erie area. They seem to have been in use just before and immediately after the coming of Europeans. With the opening of the colonial era combs became more elaborate. Steel saws and knives made it possible to make more teeth and to carve more figures on the base. The differences in technic and finish between the combs of Richmond Mills and the Dann site at Honeoye Falls, or that of Boughton Hill, point out the changes that came to the Seneca through the introduction of steel tools. After the middle colonial period bone combs occur only rarely until with Sullivan's raid they became obsolete. (For illustrations, see plates 34,

Plate 118



Typical bone and antler articles found in Iroquoian sites in New York.

1 Early Iroquoian comb; 2 Seneca comb of early colonial period; 3 antler knife handle; 4 precontact Iroquoian comb of bone; 5 precontact Oneida knife handle; 6 antler doll or figurine; 7 Bone-scraping tool from precontact site. 1 to 6,x about ⅞. 7.x about ⅓.

35, 37, 118.) The relative frequency of bone combs in certain known sites is as follows:

PERIOD	SITE	NUMBER PER 1000	PER CENT	REMARKS
Prehistoric....	Burning Spring..	.....	....	No graves found
Prehistoric....	Richmond Mills.	3	.03	Not more than 3 or 4 teeth. Some simple animal and bird effigies. Perforation
Prehistoric....	Atwell's.....	2	.02	Not more than 3 or 4 teeth, long rounded tops with hole
Early colonial 1615.....	Ripley.....	1	.01	Plain, with 3 or 4 teetn
Midcolonial 1656?.....	Gus Warren, W. Bloomfield....	4	.04	From 5 to 10 teeth, complex animal effigies
Midcolonial 1656?.....	Silverheel's.....	4	.04	From 5 to 10 teeth, complex animal effigies
Late colonial..	Boughton Hill...	4	.04	Small sawed teeth, 8 to 35. Complex ornamentation, animal effigies in combination
Late colonial..	Dann farm, Honeoye Falls.	12	.12	Of several forms. 10 to 35 finely sawn teeth. Effigies as above and conventional designs

Common errors. There is no branch of natural science concerning which there is so much guess work and so many false beliefs as American archeology. Many uninstructed persons have taken upon themselves the office of expounders of theories and even the makers of names. We are commonly told that arrowheads were chipped by the aid of fire, and we are likewise assured that hatchet heads are "skinning stones." The fault is not alone that of the farmer boy, for many persons in official positions have done crimes of guess work equally bad. Concerning Indians in general there are numerous erroneous ideas that for the sake of truth should be dispelled. We are able here to treat only of certain popular fallacies regarding archeological matters.

Arrowheads not chipped by fire. There is a widespread belief that the ingenious Indian in making his arrowheads or spears heated the flint and then dropped water on selected spots, thereby causing

bone combs in certain known

PER ENT	REMARKS
....	No graves found
.03	Not more than 3 or 4 teeth. Some simple animal and bird effigies. Perforation
.02	Not more than 3 or 4 teeth, long rounded tops with hole
.01	Plain, with 3 or 4 teeth
.04	From 5 to 10 teeth, complex animal effigies
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.04	Small sawed teeth, 8 to 35. Complex ornamentation, animal effigies in combination
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ain popular fallacies regarding

There is a widespread belief
is arrowheads or spears heavily
selected spots, thereby causing

flakes to fly off. It is possible that certain kinds of hard stone may b chipped in this manner but the whole process would be so difficu that not one out of a hundred attempts would be successful. Hea sufficient to cause chipping by the application of cold water wi granulate the stone and destroy its conchoidal fracture. Flint bake in the fire will easily pulverize. The man who states that the fi and water process was possible ought to demonstrate it by producin one arrow point. While he is making one another person who know that arrow points were chipped with small stone hammers and flake with bone tools might produce from a dozen to one hundred poin by way of demonstrating the method employed by Indians and oth borigines, quite generally. (For methods, see Chipped implements.

Skinning stones. Ungrooved axes, celts or hatchet heads wer designed to be mounted in handles and used for chopping. Spec mens have been found mounted in handles, both in ancient deposi and in the possession of modern Indians. A few may have bee intended for hand hatchets. The term "skinning stone" probabl was applied by white hunters who found an Indian stone hatch head, particularly a well-polished specimen, useful as a blade fo pressing back the pelt of an animal in skinning it.

Tempered copper. The copper obtained by the Indians in ancie times was from nodules found in the drift or from layers of th metal found in seams of ore rock. It was pounded into shape o anvils of stone and beaten into form, in some instances at least, wooden molds. To give greater maleability some aboriginal copp workers seem to have heated the metal. The finished article wa rubbed on stones and in sand until the desired polish and the edg were achieved. Native copper implements are never "tempered" that is to say, none possess a hardness equal to that of iron. The is no wonderful "lost art of tempering copper." No specimen o tempered copper made by Indians in precolonial times exists in an museum, and no person acquainted with metallurgy has ever see such a specimen. The belief in "tempered copper" is a pure myt

Mound builders. The builders of mounds were Indians who descendents were still living at the period of colonization. Explo ers in the Mississippi valley witnessed the erection of mound Nothing found in the mounds so far examined has revealed an thing that the historic Indians did not have or could not make. Th mound-building period ended at about the time of the coming of th

white man, though it is probable that the peoples who built the Ohio mounds and others of similar character had ceased this activity long before the era of white exploration because of the intrusions of warlike tribes. The erection of great mounds was necessarily a slow process and could be done only during times of prolonged peace. The mound-building tribes were probably branches of various stocks, among them the Muskhogean, the Iroquoian including the Cherokee, the Siouan and the Algonkian. Not every tribe in these stocks built mounds by any means. There were many cruder outer tribes.

Warfare. Every evidence of archeology shows that the precolonial Indians were more peaceful than warlike. The great preponderance of the implements found are those of industry and of hunting, and not of war. Such warfare as did exist was mostly in the nature of small raids only of local importance. There were, however, some great wars that affected large areas, but these were the exception. Indian methods of fighting their enemies were those of hunters stalking their prey.

Nomadism. One of the common fallacies of our school histories is that Indians were nomads, "always wandering from place to place." So far as environment permitted, to state the truth, Indians were not nomads, but sedentary. Each tribe had its known territory and its own fixed towns and villages. This is especially true of the Indians east of the Mississippi. It was only where the land was not suitable to agriculture that there was wandering. The city dweller today is a nomad for the same reason that the Indians of the plains and of the cold north were. The modern city dweller for the purpose of obtaining meat and vegetable food goes to the market sources of these foods, "wandering from place to place" to hunt what he desires. The Indian of the north and of the plains went out after buffalo meat and searched out the regions that produce edible seeds and roots, and was only a wanderer because the source of food supply was distant from his domicile. The plains Indians after the introduction of the horse wandered over the plains in search of the buffalo herds, but generally had fixed winter rendezvous. Some wandering and much warfare were caused after the European invasion by the shrinking of the hunting grounds and the loss of tribal territory. The coming of civilization and of Europeans paralyzed the development and progress of native culture and actually accelerated savagery for a long period of years. Sedentary tribes became wanderers because they were encroached upon. They became hunt-

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Tepees and wigwams. The eastern Indians did not live
conical skin tepees used by the Indians of the plains region
descriptions, pictures and sculptures showing our eastern Algo
and Iroquoian people as tepee dwellers are incorrect. The dw
of the eastern Indians were houses made of bark. Some of
houses were more than 150 feet in length and some housed fro
to ten families. The term *wigwam* may be applied to the
bark house, and *tepee* to the skin tent. *Wigwam* is an A
word; *teepee* or *tipi* is a Siouan word.

Work done by women. The idea that the eastern Indian
did all the work of the tribe and of the family is erroneous.
women had certain prescribed duties; men had theirs. The
a distribution of labor by no means more unjust than exists
present time in civilization. An untutored Indian coming fron
secluded region might at the present time return to his tribe an
that white women do all the work and that all a man did was t
his house after breakfast and sit all day smoking and look
a book, now and then making black scratches on it. He
possibly state that the white man loved war and wandered
"make fight upon the lands across the big sea water," leavi
women to be machinists, car conductors, farmers, day labore
voters. This untutored hypothetical Adario would misunde
our economics as much as the white commentator misunde
the economics of aboriginal life. As a matter of fact the
hunter and fisherman had no easy life. Early missionari
explorers have frequently written of the Indian hunter's har
The men cleared the land, built the stockades, cut the trees, b
houses (which thereafter became the property of the women
cured the meat and skins, defended the village from wild bea
did other heavy manual labor. The women planted the land,
the houses, kept them clean, cooked the meat, dressed the hi
most of them, and did other domestic duties. The divis
labor was as equitable as the state of society and environment
permit. Indian women, like their civilized sisters today wer
ever, required to do as much work as they would.

Copper implements. Native copper implements are rather
New York, but there are localities where a considerable
have been found. New York native copper implements includ
beads, pins, arrow points, spear points, celts, chisels, knives (

ornaments, adzes and digging tools. The largest number of coppers have been found in Chautauqua county, about Oneida lake, about Lake Champlain and in the Hudson valley near Catskill. Scattered specimens are quite likely to be found anywhere in the provinces of either the Algonkian or the mound-building people. In early days when the land at the west and northwest end of Oneida lake was cleared, farmers frequently sold native copper implements to local tin and coppersmiths. Perhaps fifty good specimens from this locality have found their way into collections. Otis Bigelow collected about twenty, all in the State Museum, some of which are shown in plate 119. Native copper implements seem to have come into this area by trade rather than by manufacture here. All bear evidence of having been hammered out and none are cast. Needless to say not a single native copper implement is "tempered," and, indeed, no aboriginal tempered copper exists in America; all statements to the contrary are pure myths. Examination proved that one specimen that was reputed to have scratched glass had a flake of dark quartz or flint inclosed by the metal at the point where it scratched the glass. It is interesting to note how the American natives had discovered the value of a ridged back to give strength. Nearly all their copper implements have this ridge as the middle line between the beveled planes. Provision for handling was made by three methods: by insertion in a slit, like an arrowhead; by a spiked projection, like a file neck; and by a flanged socket that allowed the handle to be driven in. Copper implements are far more numerous in Ohio, Michigan, Wisconsin, and in the states adjoining the Mississippi than in New York. It is doubtful if more than 250 copper implements and objects, not including separate beads, are to be found in all the New York collections.

Culture. By this term we mean the motives, habits of thought and the activities of a people, represented by what they produce along material and intellectual lines. The materials manufactured by a people represent their *material culture*.

In New York there are evidences of many forms of aboriginal culture, some of which we are unable to identify tribally. Others are recognized as Eskimolike, Algonkian, Mound Builder and Iroquois.

Cups. Stone cups or small mortars are rare in New York. A few have been found along the Hudson and down the Susquehanna.



copper objects from central New
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Lysander; 9, Van Buren; 10, G

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Native copper objects from central New York localities as follows: 1, Clay; 2, Lysander; 3, Clay; 4, Granby; 5, Lysander; 6, Seneca river; 7, Glens Falls; 8, Lysander; 9, Van Buren; 10, Glens Falls; 11, Lysander.

The State Museum has four specimens from the Hudson valley in the vicinity of Catskill. The two specimens shown in plate 120 are from the Thompson collection and came from sites near Hudson. The upper figure shows a perforation. The outside of the bowl near the rim has a series of incised patterns resembling bird tracks encircling it. It is not likely that these objects were used for drinking cups for they have little capacity. They rather suggest having been used for paint or medicine mortars.

Cups or dippers were sometimes made from large sea shells from which the columellae had been cut. Some of these have been found on Neuter sites in Western New York.

Cupstones. The term cupstone is applied to certain types of stones having one or more pits pecked or drilled on one surface. Usually these pits or depressions are concave, well made and nearly uniform in size. Certain specimens show a secondary drilling at the bottom of the depression. In a majority of instances cupstones are made from sandstone or other gritty rock.

No known use may be safely ascribed to them though they have some times been called nut stones or paint mortars, both probably erroneous as descriptive terms. A better theory would be that the depressions were used for rounding the ends of wooden knobs, for certainly nearly all cupstones are made of some abrasive rock.

Discoid implements of stone and clay. Implements and ornaments of this kind have mostly been found in the Iroquois area. Thin segments of slate were worked by the Iroquois as discoidal beads. Other specimens show no perforation and may have been used in games. Some are perforated as pendants. In the Iroquois areas in Jefferson county numerous disks of pottery are found evidently worked as game disks. The Iroquois still have games where similar dice are used. Plate 121 illustrates various discoidal articles, all except number 3 being from Jefferson county. The unperforated disk comes from Plattsburg.

Disks, perforated. These vary from roughly chipped disks of sandstone or slate to carefully finished biconcaves. The rougher forms are larger and the holes seem to be picked into the central part of the object from either side until the septum broke through. Rougher forms have been found about Hemlock lake and one broken specimen, originally polished, came from the Owasco Lake site. Discoidal beads of soft stone have been found in certain

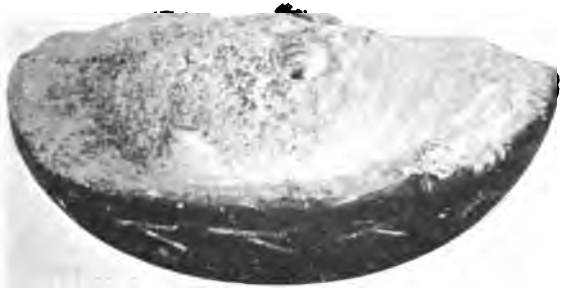




Small stone mortars or cups fro
Hudson; 2, from Catskill.

Pla

Plate 120



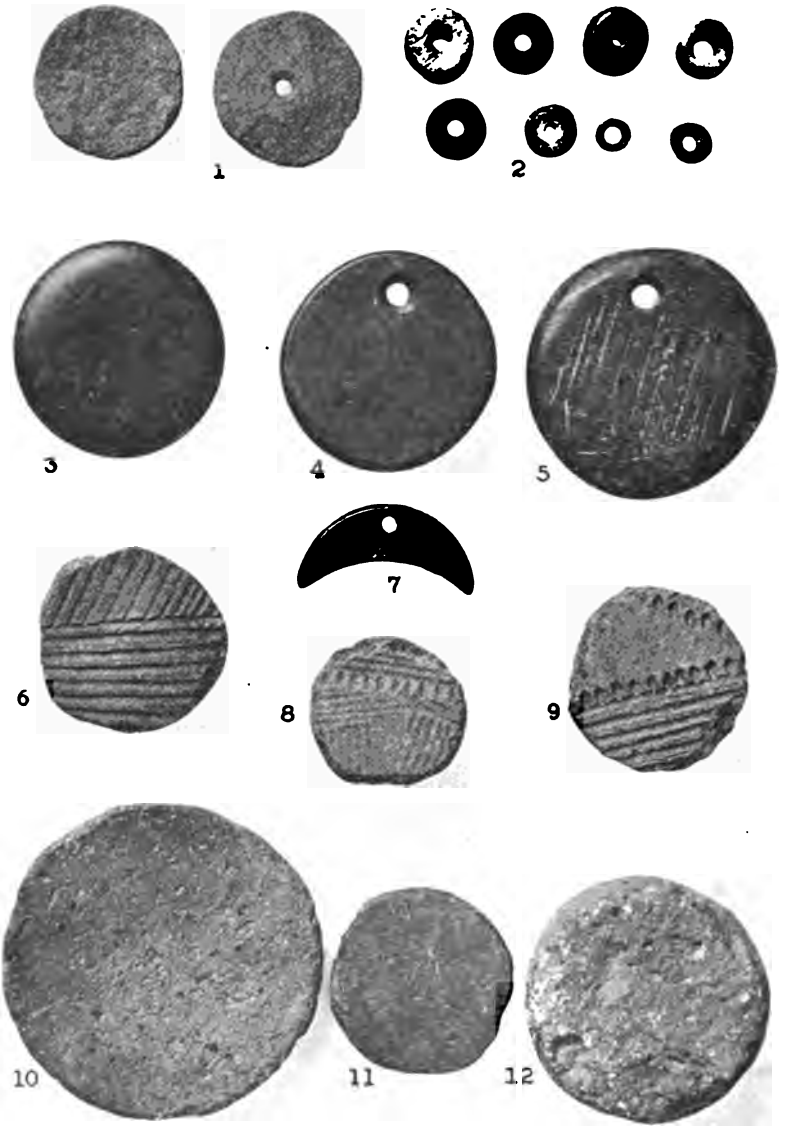
1



2

Small stone mortars or cups from the middle Hudson valley: 1, from Hudson; 2, from Catskill.

Plate 121



CERTAIN TYPES OF DISCOIDAL OBJECTS. X¾

1, red slate disks, Ontario co.; 2, steatite beads, Jefferson co.; 3, black stone disk, thick, Plattsburg; 4, 5, perforated disks, Watertown; 6, 8, 9, pottery disks, Watertown; 7, serpentine crescent, Watertown; 10, 11, 12, plain pottery disks, Watertown. 12 is tempered with pulverized shell.

localities, as about Oneida lake. Some discoidal beads are Iroquoian, and many have been found in Jefferson county. (See Stone beads, biconcave disks.)

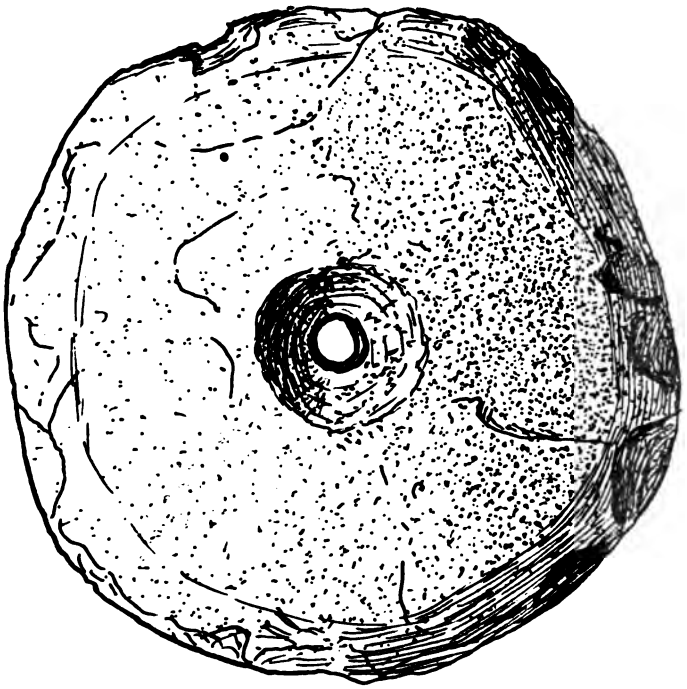


Fig. 53 Notebook sketch of limestone disk found at outlet of Honeoye lake by H. C. Follett

Engraved articles. Some articles of stone, bone, antler and shell are engraved with various designs, some of them no doubt being hieroglyphic or symbolic. Articles incised in decorative designs are by far the more common, those containing symbolic figures being relatively rare. Pottery is occasionally engraved, especially fragments. One specimen from the Shinnecock Hills site had an engraved representation of a thunder bird. Slate articles, particularly gorgets, occasionally have engraved designs, but all such objects must be carefully inspected to see whether or not the engraving is aboriginal. The lines should show a weathering similar to that of the surface of the stone. Sharp flints were capable of making fine incisions but care should be taken to see that such lines were not made with the tip of a steel knife blade. The engraved gorget shown in plate 122 is from the vicinity of Afton lake and shows











Certain incised and decorated polished stone objects. x¾. Birdstone from
ld Spring, Oneonta. Implement shaped like a stamp with triangle engraved
lower side, Onondaga co. Broken pipe with inscriptions, Jefferson co.
concave, from Oneonta. Engraved gorget from West Davenport.
r collection.

typical decorative scratching. The pipe shows a rarer form of engraving and the figures may be symbolic as well as decorative. With the advent of European tools many aboriginal articles were carved and engraved. This is particularly true of shell ornaments, many of which were cut and carved with metal implements. So far as engraving and "picture-writing" is concerned, the native peoples of this region seemed to prefer wood and other more easily worked material.

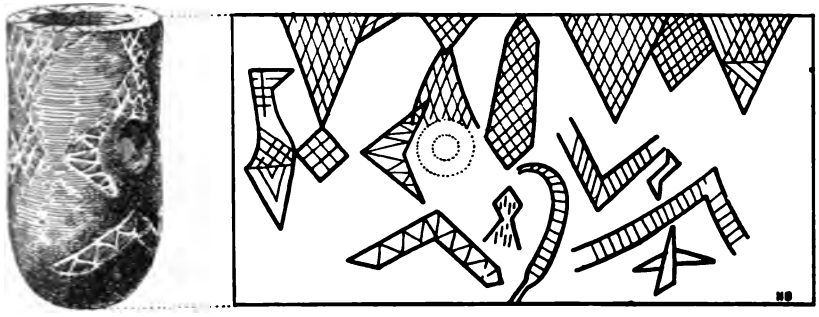


Fig. 54 Engraved pipe bowl found by W. T. Fenton at Connewango. x7/8

European contact. The coming of white men from Europe to the New York area shortly after the opening of the seventeenth century wrought a considerable change in the culture of the Indians. Hitherto they had utilized the simple materials found about them to satisfy their simpler needs. They labored long with flint tools to carve their utensils and weapons; their game was killed with club, spear or arrow. They had no easy means to accomplish anything that required change of form; life was a hardship best endured by him who complained least and was best aware of his resources. At the same time the more vital needs were jealously guarded both by rational means and by use of charms and ceremonies.

The coming of the European caused a cultural upheaval among the American natives, and they saw themselves poorly equipped in many material things, to compete with the pale visitor. The white man valued speed and had sought the means to attain it. He rode horseback and outdistanced his swiftest human pursuer who had none; he had guns and powder — a terrifying means of killing his foe, and even animals.

But what was of more immediate value was his steel axe and knife. With these trees could be felled and he could hew, cut and carve. The finest flint tool was a clumsy, inefficient com-

petitor of a steel implement. The white man also brought brass kettles, steel scissors, awls of iron, sheet metal and wire. He brought a new fabric that he called cloth, and he had blankets, coats and trousers made of it. All these things and many shining trinkets, as chains, beads, thimbles and mirrors, the white man was eager to trade for such simple natural things as beaver pelts. The red man was eager to get these wonderful, convenient articles. To obtain them the red man became more and more a hunter and trapper. Gradually he gave up his stone tools, his skin mantlé, his clay kettles and his bone awls. The white man's things were better. Thus the red man became a trader always giving great quantities of raw material for a small amount of manufactured goods. Soon the red man was a dire dependent using material he did not produce and in whose making he had no part. He draped the white man's shirt over his shoulders and hung its lower flaps over his leggins, but he was not a white man; he shot a white man's gun and cut his food with a white man's knife and cooked it in a white man's kettle; yet he was only a barbarian who did not make what he used so constantly. In this manner the Indian's material culture faded away and the white man's supplanted it. The entire process can be traced on the village sites of the New York Indians.

If we were to moralize from this we should write an essay on methods of civilization and point out that to truly civilize a people immediate commercial motives must not dominate the purposes of contact with undeveloped races. If we wish to impart our civilization to them, the effective methods would be to show the native the greater efficiency of our tools and goods and then teach him how to make them.

Excavations. For methods, read "The Ripley Erie Site."[1] The amateur archeologist should not open graves without completely exposing the skeleton and leaving all relics in place until a detailed record and photographs can be made. The position of objects with relation to the skeleton is important. Refuse pits and ash heaps should be charted and a record made of all objects from each pit. Maps should be made showing the location of each pit or grave, and all other features of importance.

Faces, human. Effigies of the human face in stone have been found in various localities, particularly along the Delaware and the Susquehanna and their tributaries. These vary from specimens that merely suggest a face by three depressions, to carvings that are

[1] N. Y. State Mus. Bul. 117.

fairly good representations. In size these face stones vary from discoid pebbles with a diameter of 3 inches to carved blocks of stone 8 or 10 inches in length. The frequency of stone faces in the southern tier of counties may be accounted for by remembering that the Delaware Indians who occupied this region used stone faces, called *mising,* in some of their ceremonies. Effigies of human faces were carved on the posts of their council houses.



Fig. 55 Stone face from Chemung county

The Iroquois made some small maskettes in stone, particularly catlinite, but their largest and best carved effigies were their wooden masks, which were used in various ceremonies, both public and secret. Catlinite maskettes have been found in certain Onondaga and Seneca sites. Metallic eye rings of wooden faces are sometimes found. They are flat disks of brass or copper with the centers cut out.

Bone faces were carved by the Iroquois, particularly by the Seneca. These faces were sometimes made from some animal's patella or from other bone or carved like maskettes from antler. There have been several bone and antler faces found in graves in Ontario and Livingston counties. All are small, none being more than 2 inches in length. Bone faces among the Iroquois belong to the early colonial and midcolonial periods.

Human faces modeled in clay and baked are found on both the pipes and pots of the Iroquois tribes in New York. The modeling of faces on pipes is particularly interesting and in many cases is exceedingly well done, revealing the work of skilful hands and eyes. Faces are particularly fine on certain prehistoric clay pipes. Faces on Iroquois pipes are found in some of the earliest as well as in some of the most recent sites of Iroquoian occupation in New York. (See Pipes and also Stone faces in the description of the Algonkian occupation.) (See also plate 11.)

Firestones. A name applied to pebbles or cobbles that have been heated in fires and used for immersion in bark or skin receptacles containing water and food. By the continuous process of putting in hot stones and taking out the stones when cooled, food was cooked without placing the containing vessel directly over the source of the heat. Some firestones were used in sweat lodges. They were heated and drawn inside the small dome-shaped structure, when water was poured upon them, the steam arose and soon the sweat lodge was filled with hot steam. Cooking stones are commonly found on village sites; some are cracked and granulated. Firestones used in making the steam are commonly found along streams and lakes. Many times a flood that denudes the shore for a few inches will reveal them clustered together in their original position.

Fishhooks, bone. Bone and antler fishhooks are among the rarer of aboriginal artifacts. They are of various forms and sizes, but all have the hook shape. Some being barbed and others plain. Fishhooks occur both in prehistoric Algonkian and Iroquoian sites, but these older specimens are seldom barbed. Some hooks have a smooth stem, others are knobbed to afford a better grasp for the line. Fishhooks have been found on Algonkian sites on Long Island, as at Sag Harbor, and on Oneida lake, especially near Brewerton. On Iroquoian sites they have been found in considerable numbers, especially in the Pompey forts, the Atwell fort (see page 590), the Shelby

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rt (see page 590), the Shelby

fort, the Buffam site, Buffalo, the Richmond Mills site a
ous Jefferson county sites, especially near Watertown.

Barbed hooks in some places appear just before the
white man, as at the Atwell site, Onondaga county, near th
county line.

Hooks are found in the above-mentioned sites in all
manufacture. It appears that the Indians in making
cut off a section of flat bone or a long segment of a cylind
and drilled a hole the width of the inner part of the ho
end. Then by careful incision they worked away the bo
the holes, making a long link rounded at either end and
each side. Then up from the curve of each end the bon
ered, making two hooks which were afterward sharpened.

A complete series was found by Alvin H. Dewey at the
Mills. Some fishhooks have heavy bottoms perhaps for
purpose of strengthening the hook and for attracting fish.
this type claimed from the Pompey sites are spurious.

Consult Beauchamp, N. Y. State Mus. Bul. 50, Horn
Implements; Rau, Smithsonian Contrib. 25, Prehistoric I

Flaking tool. A flaking tool is a fragment of bone or a
1 to 6 inches in length used for pressing against the edge
of broken flint for the purpose of still further reducing it t
shape. Flakers show the marks on one or both ends, of
tact with flint blades. Long flakers might be used witho
but if specimens used by Indian tribes in historic time
guide, all were securely fastened to bone or wooden
afford a stronger grip and greater pressure.

Flint. A variety of translucent chalcedony that occurs i
of nodules in chalk or limestone. In color it is dark g
and black, varying according to locality and the coloring
it contains. In substance it is composed of silica and th
residue of fossil sponges and radiolarians. True flint is v
North America and occurs mainly in Arkansas and Texa
found in abundance in the chalk and limestone regions o
France, Belgium and in other places along the northwest
coast. Flint, so called, was used by the aborigines of
spheres for making chipped implements.

Fossils. Fossils are frequently found on Indian sites a
places as to indicate that they were collected by the aborig
are worked as ornaments, as stamps or as pipes. The

particular were fond of fossils as ornaments and sometimes placed them in graves. Some modern Seneca collect them by the basketful to put in graves, as among the Seneca of Newtown, Cattaraugus reservation. Mr G. L. Tucker has in the Buffalo Consistory Museum a fine specimen of a large Spirifer drilled out as a pipe. He found it on the Iroquois fort at Belmont, Allegany county. A seal pendant



Fig. 56 Objects made from fossils. 1 is apparently a stamp and comes from Broome county; 2 is a pipe made from a fossil Spirifer and was found by G. L. Tucker at Belmont. x1

containing a fossil crinoid stem in the Willard Yager collection at Oneonta came from Port Dickinson. Segments of crinoid stems are sometimes found used as beads.

Frauds. Every student of archeology will sooner or later come across fraudulent specimens. They may either be in private collections or offered for sale by a pretended finder. Stone articles as gorgets and pipes seem to be favorites with counterfeiters. A few dealers have made articles of bone. An experienced eye will soon detect faked specimens. The faker generally forgets one or more essential points, or makes his fabrication with some inconsistent feature. Nearly all the various means used to age bone or stone artificially may be detected and the marks of steel tools may be seen with a magnifying glass. Dyes and stains will wash off when the specimen is put in boiling water. Every suspected specimen should be washed in pure hot water as a preliminary test.

It is needless to say that the maker of a fraud of this kind commits a greater moral crime than the counterfeiter of money; for the latter simply imitates a substance that affects knowledge only slightly, while the maker of a fraudulent archeological specimen sets

the seeker of truth far astray and may, if he is successful, delay or prevent the correct alignment of facts that lead to the solution of some important problem. There should be severe penalties for forgery of this kind; indeed, some states make it a criminal offense.

Honest collectors should seek out the sources of frauds and report them to a responsible museum or archeological association. Everything should be done to learn where the frauds were sold, who has them, and pains taken to inform the owners.

Gorgets. Gorgets are generally thin tablets of stone well formed and polished, and pierced by one or more perforations. This gives to them the descriptive term, "pierced tablets."

The area in which gorgets are found in the United States and Canada nearly coincides with that of the banner stone. In New York gorgets have been found in nearly every part of the State showing any considerable signs of Algonkian or mound-builder occupation. None is found on Iroquoian sites. Some have been found in graves of the polished slate culture, but most have been picked up upon the surface. Some have been found in fragments and others complete, in refuse heaps.

Gorgets are generally made of some variety of compact ornamental slate, but there are many specimens made of monochrome slate, of shale, sandstone, and even shell. The form of gorgets varies considerably and indeed there are several distinct types, ranging from specimens that seem to be pendants having one hole, to tablet forms having three or more. The outline varies from natural ovid pebbles through rectangular shuttle-shaped, spatulate, incurved sides to segments of arcs and outcurved sides. The State Museum has many interesting specimens from nearly all parts of the State. (See plate 123.)

Several uses have been suggested for the pierced tablets or gorgets and indeed it is quite likely that these tablets, varying in outline and position of perforation, did have varied uses according to type. Supplementing the theories already on record we wish to record one which had its origin in our investigations among the Canadian Delaware in 1910. Inquiry led to the statement that the Delaware at an early historic period had used gorgets as hair ornaments employing them as roach spreaders, the married women using them as fasteners for a single braid of hair which was looped up. Lewis H. Morgan in 1850 collected a gorgetlike implement made of wood covered with buckskin. This article he found among the Canadian Indians of the Six Nations' reservation. The label states that



Tablet gorgets of various types x⅔

hair ornament. A ph
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the natural or artificial cres
its use for this purpose in vie
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Gouges. Gouges are adzlike bl
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subvariations. Its form may b

Short scoop, (*a*) shallow, (*b*)
Long scoop, (*a*) shallow, (*b*)
Trough scoop *A* (*a*) shallow,
B (*d*) broad a
depth
C (*e*) narrow a

Flat scoops, either as in 1, 2, or
the backs of gouges may be (1)
stumped, (5) knobbed, (6) gro

ges vary from specimens 2 in
ore. The degree of finish and
Some specimens are highly
ace of wear; others show the l
the scoop or trough.
ges are not widely distribute
ewhat rare. Few occur in the s

it is a hair ornament. A photograph of an Indian girl with this object placed on her looped braid indicates the manner of its use. We have no certain knowledge that an article of this kind was used upon the natural or artificial crests of hair effected by some Indians, but its use for this purpose in view of our information is entitled to some credence. Our belief, however, is that not all gorgets were used for this purpose.

Amateur archeologists are fond of speculating upon the so-called "problematical" objects and by their very speculations imagine uses for things that are far from the true purposes. Gorgets are one of the favorite subjects for speculation. A sensible view is to consider them simply ornamental fastenings, as a large button might be. Some might thus have been used as roach spreaders, similar to those used by the Shoshoni, who had them of bone, or they may have been used on dance bustles, pouches, on a shirt or shield. In their varied forms undoubtedly they had several uses.

Gouges. Gouges are adzlike blades having a curved cutting edge at the terminus of a scoop or trough. This permits a method of use not possible with a celt or adz. Gouges in general are shaped like adzes and have one side (that on which the scoop or trough is placed) flat, the other side being rounded or beveled up into a back. Like all such cutting blades, sizes and forms differ according to the material and purpose intended. The trough has several variations and subvariations. Its form may be approximated in the following:

1 Short scoop, (*a*) shallow, (*b*) medium, (*c*) deep
2 Long scoop, (*a*) shallow, (*b*) medium, (*c*) deep
3 Trough scoop *A* (*a*) shallow, (*b*) medium, (*c*) deep
B (*d*) broad and tapering toward butt, with depths (*a*), (*b*), (*c*), as above
C (*e*) narrow and tapering towards butt
4 Flat scoops, either as in 1, 2, or 3

The backs of gouges may be (1) flat, (2) beveled, (3) rounded, (4) humped, (5) knobbed, (6) grooved.

Gouges vary from specimens 2 inches in length to those of a foot or more. The degree of finish and the polish differ as do celts and adzes. Some specimens are highly polished and show little or no evidence of wear; others show the picking process and are polished only in the scoop or trough.

Gouges are not widely distributed and good specimens may be considered rare. Few occur in the south, though there are southern

Plate 124



Certain types of New York gouges. x½. 1, Lysander; 2, polished slate ouge, Clay; 3, knobbed back gouge of tough stone, Glens Falls; 4, small ouge with two grooves on back; 5, scoop mouth gouge, Ticonderoga; 6, ombination adz and gouge, from Schoharie.

made of hard shell. Sp
Iroquoian, but relatively fr
tario, New York and Penns
Gouges may have been haftec
following out wooden utens
mortars, bowls, masks and like
the hand only, and without h
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ers, Cambridge, v. 1, no. 6;
p. 58.

Grinding stones. Stones used f
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ave taken the trouble to co
several types of grinding stones
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for polishing celts or other sir
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curved outlines. Many sucl
on sites or in graves. Th
having been worn down on o
importance of good grinding s
known to and appreciated by th

forms made of hard shell. Specimens are uncommon west of the Alleghenies, but relatively frequent in New England, Quebec, Ontario, New York and Pennsylvania.

Gouges may have been hafted as adzes and used as working tools for hollowing out wooden utensils (by aid of the charring process), as mortars, bowls, masks and like objects. Some may have been used in the hand only, and without handles. Some early writers suggest their use as sap-spikes or spouts, but unless they had some ceremonial value, we can not see why a wooden tube would not have better served the purpose.

Gouges are found in nearly all parts of the State, particularly where Algonkian evidences are to be found. In Oswego county one was found in a grave with a pendant gorget. On other sites they have been found associated with grooved axes, adzes, beveled celts, plummets, slate knives and steatite pottery. None is found on Iroquoian sites. (See Celts, Adzes).

Consult Handbook 30, B. A. Eth.; Fowke in 13th Annual Rep't B. A. Eth.; Moorehead, Prehistoric Impl.; Fowke, Arch. Hist. Ohio; Willoughby in Prehistoric Burial Places in Maine: Peabody Museum Papers, Cambridge, v. 1, no. 6; Beauchamp in N. Y. State Mus. Bul. 18.

Grinding stones. Stones used for grinding other stones are frequently present on sites of aboriginal occupation, but very few collectors have taken the trouble to collect and to study them. There are several types of grinding stones, each suitable for some specific purpose. Some flat slabs of sandstone have depressed surfaces, or long shallow grooves that appear to have been used with sand and water for polishing celts or other similar implements. A number of grinding stones of this kind have been found on certain Iroquois sites. It is quite probable that numerous gritty stones were used in polishing the large number of implements made and used, but most of these abrasive stones probably show few signs of work that would distinguish them from those only weathered or waterworn. Another type of grinding stone has a flat surface incised by flint cuts. These seem to have been used for grinding bone implements, as bone awls. A third type is found in certain long, flat pebbles having curved outlines. Many such stones are sometimes found together on sites or in graves. They are gritty and some show signs of having been worn down on one end.

The importance of good grinding stones and other abrasives was fully known to and appreciated by the aborigines. To them abrad-

ing stones and abrasive sands were most important to their industries. Without them many articles of bone and wood, not to mention implements and ornaments of stone, would have been the more difficult to make and polish.

Grooved axes. The grooved axe is a widely distributed North American implement having a great variety of forms. It is fairly rare in New York State. The average form is a thick wedge having a groove encircling it at a point about two-thirds the length from the sharpened edge. The butt end is usually thick, wide and heavy, and the bitt in the greater number of forms, the narrowest part of the implement. Certain other forms have a wide blade. The groove in most New York forms is at right angles to the long axis, but a few forms occur where the groove slants at a more acute angle. The material out of which grooved axes are made is almost without exception some hard tough rock, as granite, syenite, quartzite, green stone, tough limestone or trap. Some specimens are of hard shale or sandstone. There is a considerable range in size and weight, some specimens in New York weighing nearly 10 pounds while others are as light as 4 ounces. The average weight of specimens ranges from 1 to 7 pounds. The groove in most specimens completely encircles the axe but in others one narrow side is without it and has a flattened place instead. This was the point upon which the handle rested. Certain forms have a simple groove which is merely a depressed channel surrounding or partly surrounding the axe; other specimens have heavy ridges bounding the groove.

The outline of axe forms varies considerably, as shown in plate 125. Finely finished specimens are found in all these forms.

Most grooved axes have only a rough finish and still show the marks of the battering hammer that pounded them to shape. A few specimens have a polish but even the most highly polished have the groove left in a roughened state to afford a better hold of the handle binding.

See also Notched axes, Celts, Gouges, Adzes, and Grooved axes under the Algonkian occupation, pages 60–62.

Grooved club heads. These implements are among the rarer forms of tools and weapons. They vary from natural pebbles that have been grooved to beautifully formed and polished ovate stones with carefully ground grooves. Some specimens appear to have been reworked from grooved axes. Some show no abrasions, as if they had been ceremonial clubs, while others by their battered ends

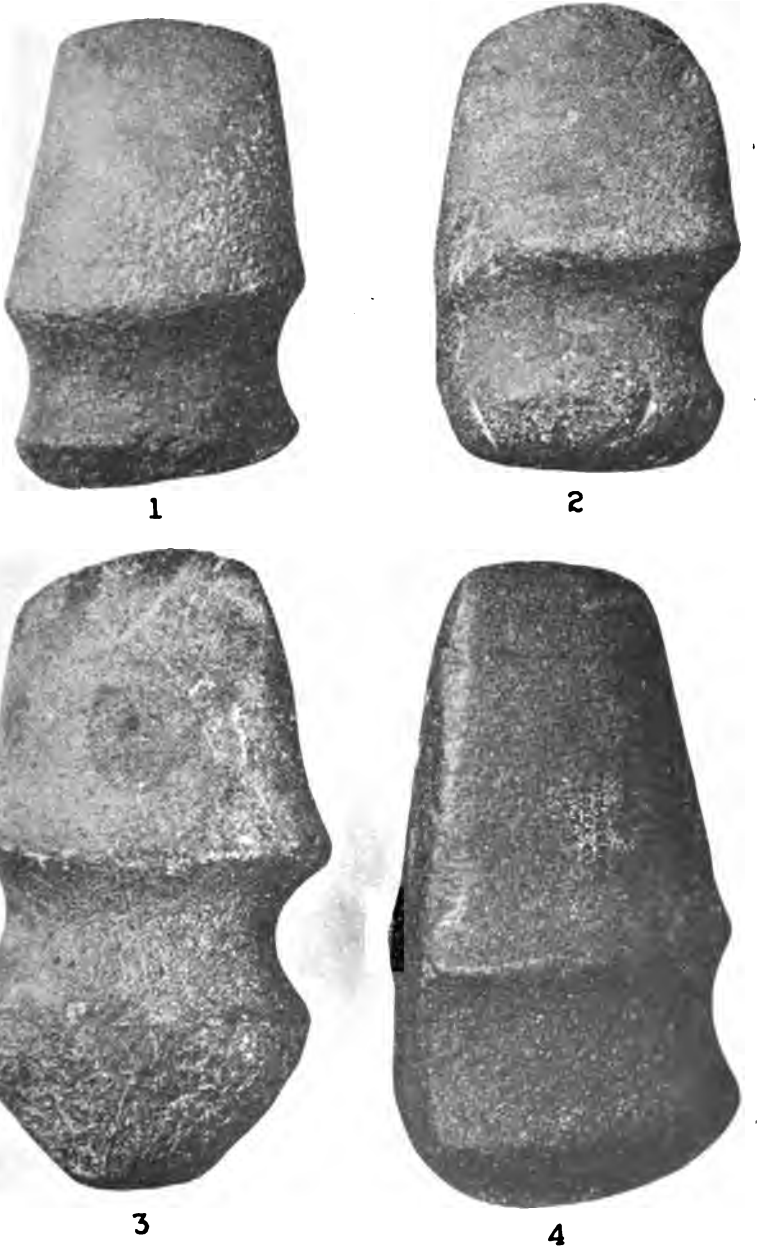


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...pes of New York grooved
...alles, Cattaraugus co.; 3,

Plate 125



Types of New York grooved axes. x½. 1, Irving, Chautauqua co.; 2, Versailles, Cattaraugus co.; 3, Mount Morris; 4, Ticonderoga.

have plainly been hammerheads or mauls. Plate 126 shows a few selected types from the State Museum collection.

Hammerstones. Worked stones, designated hammerstones, are found throughout New York State on sites of former Indian occupation. They are similar in size and generally in shape to such stones from the surrounding area, as in Canada, New England and Pennsylvania. The battered edges of many of these worked stones suggest their use-name, hammerstones. Many, however, though having opposed cavities or pits, for "grasping between the thumb and forefinger" have edges showing only the unaltered natural rind.

Hammerstones are usually made from natural pebbles of a size convenient to be held in the hand. They vary in weight from 2 ounces in certain small specimens to 3 or 4 pounds in the largest. The stones chosen are in most cases natural discoid pebbles of granite, quartz, compact limestone or other hard and tough rock.

Hammerstones may be divided into several types:

1 Naturally discoidal pebbles, having
- *a* battered edges
- *b* centrally placed pits on either side, but not battered edges
- *c* opposed pits and battered edges

2 Natural cobbles or pebbles of thick and irregular shape having battered edges and opposite pits. These have two sides more or less flattened.

3 Discoidal hammers carefully worked to shape having evenly battered rims, smooth surfaces and neatly made pits.

a In one form one surface seems to have been a muller. This form grades into the muller, biconcave disk and smooth discoid.

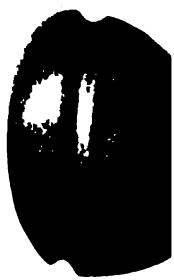
4 Polygonal hammers of irregular shape having many faces. These are usually of the hardest varieties of rock as quartz, chert, granite, limestone, diabase etc. In most instances they are smaller in diameter than the discoidal pitted forms and of a shape that roughly fits the hollow of the palms. These chunky hammers are frequently so battered that they become either (*a*) worn down into small irregular masses, or (*b*) by careful handling, purposely worked into spheroids, which become the fifth form.

5 Ball-shaped hammers apparently purposely shaped so for other purposes than battering stones. It is possible that some of the finer forms were used as club heads held in tight rawhide envelops or that others may have been balls used in games, or that they were used as special hammers for cracking marrow bones.





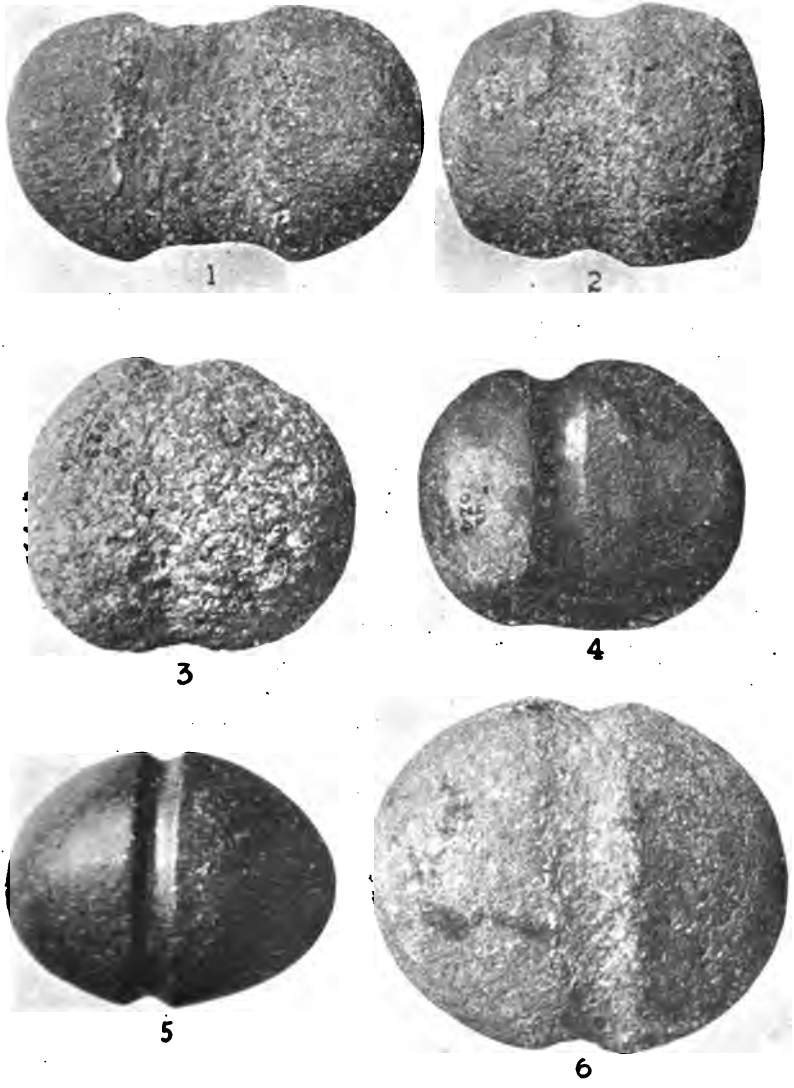
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Grooved maul or club head from Livonia, Livingston co. Grooved pebble of granite, Hammer, Delaware co.; 5, highwasser co.; 6, grooved pebble,

Plate 126



Grooved maul or club heads from N. Y. localities. x½. 1, wide groove, from Livonia, Livingston co.; 2, battered face, Seneca river; 3, rough grooved pebble of granite, Horse Heads; 4, grooved axe battered down as a hammer, Delaware co.; 5, highly polished grooved ovate club head, Bergen, Genesee co.; 6, grooved pebble, Chemung co.

6 Grooved hammers, in the form of elongated stones nicely worked with grooves for hafting. This form is rare in New York State and specimens are usually small. They resemble thick grooved axes but of course have no edge. Both butt and face show use, but principally the face.

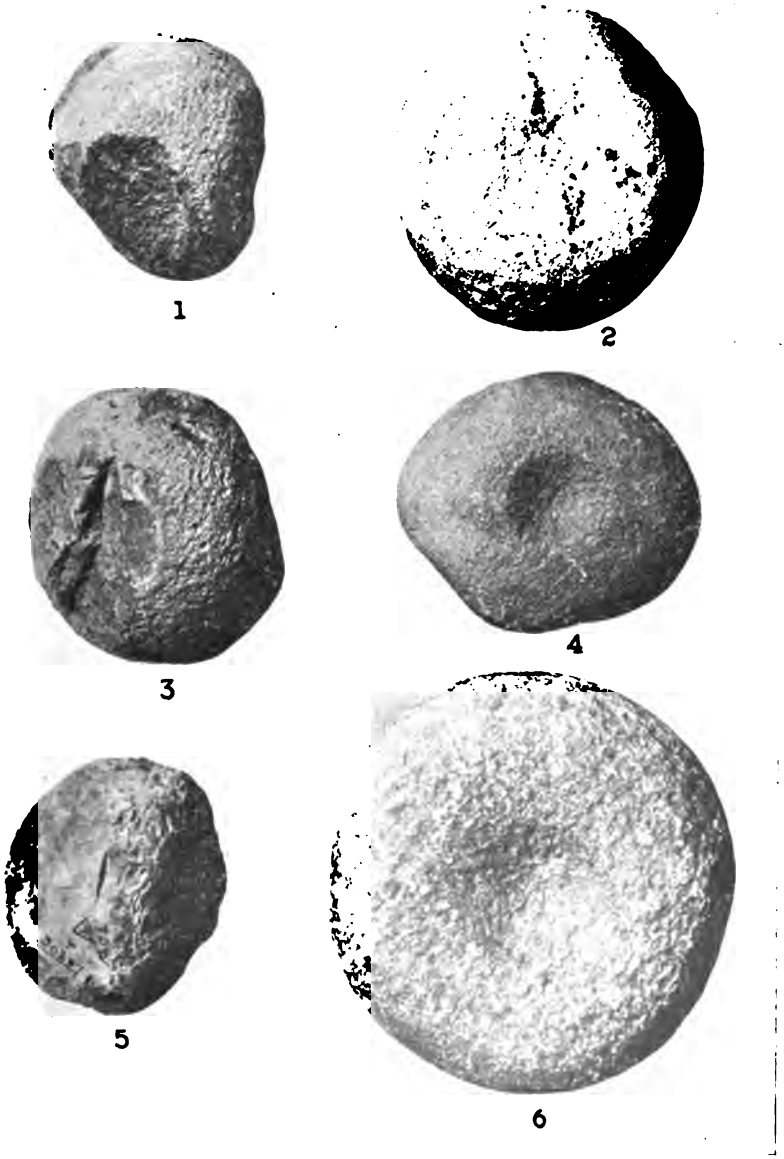
7 Celt or adz forms made either from celts or adzs that had the cutting edges accidentally broken, or purposely battered by use as hammer faces. Most celt forms found in this State seem to have been made after the edge had been dulled or broken, but oddly enough beveled adzes used as hammers are particularly numerous. Some were used to such an extent that only enough remained to hold to the handle binding.

8 Pestle hammers in the form of long heads purposely shaped from hard stone or made from long pebbles of more or less cylindrical or elliptical cross section, are sometimes found. The roughened and scarred ends of these hammers indicate their usage for pounding or breaking stone, and not grain or other soft substances. In length the pestle hammer is not more than 6 inches and may be as short as 3. Some of them appear to have been hafted.

Hammerstones are found in quantities on all Iroquoian sites and only in a slightly lesser degree upon those of Algonkian origin. Hundreds, for example, were picked up on the Richmond Mills prehistoric Iroquoian site. Mr Dewey enumerated 265 actually known to have been found there. Mr Luther picked up 300 on the prehistoric Algonkian site near Naples, Ontario county. Wherever hammerstones are found mullers will be found and also shallow metates and anvil stones. Pitted hammerstones are the most abundant. These may have from two to four pits on each opposite side. Pits are sometimes picked in with sharp flints, bruised in by concussion, or more rarely drilled in neatly. Drilled forms occur in the Chenango valley and the ball form most commonly in the Genesee valley and the upper Hudson.

Hammerstones seem to have been used for pounding stone, for cracking nuts and marrowbones, and indeed for any purpose that they would serve. Those that show no bruises may have been housewives' utensils used for cracking bones, rubbing hides, or perhaps for firestones used in heating water or soup. Hammerstones that plainly show their use against stone were undoubtedly employed for reducing other implements, as celts, to form. By continuous impact upon another stone the surface flakes off where struck and the implement in process gradually takes form.

Plate 127



Types of New York hammerstones. x½. 1, compact limestone, Richmond Mill; 2, quartzite, Richmond Mills; 3, Ashland, Chemung co.; 4, drilled pits, Mount Upton; 5, chert, Lansingburg; 6, limestone, Painted Post.

Harpoons, bone and antler. In this area bone harpoons are relatively numerous in early Iroquois and Algonkian sites. They are made from splinters of bone ranging from 4 to 12 inches in length, and are found in five general types; those with (1) one barb near the point, (2) double barb near the point, (3) unilateral — several barbs on one side, (4) bilateral — several barbs on each side, (5) barbs on both ends — double-ended harpoons.

Many harpoons have been found in sites along the east shore of Ontario, along the St Lawrence, along Lake Champlain, about Oneida lake and in various Iroquois sites, as at Richmond Mills, Atwells, Garoga, Clifton Springs.

Hematite. A variety of iron ore, generally dark red or black in appearance, which while heavy is relatively soft. This material was used by the aborigines for a number of purposes, but principally for its value as a pigment and for material out of which to make implements. Hematite occurs in masses in the region of iron mines, and elsewhere it is found in nodules and small boulders. Rubbed on rough stone a red powder is formed. This was much used by the Indians who rubbed lumps of hematite into various forms, as pyramids and hemispheres. Certain implements were made of hematite, such as plummets, small celts, grooved axes. These articles are polished a lustrous black.

Hoes, stone. Chopping or digging implements made from pieces of shaly rock, slate, limestone and other tough stones are frequently found along the river flats of the Susquehanna and Delaware and their tributaries. The shape of these objects and the smoothness of their chipped ends suggest their use as hoes. A few specimens have come from the Genesee valley and from the upper valley of the Hudson. The illustration (plate 8)— gives a good idea of the general outline of a stone hoe.

In the Mississippi valley and in the Ohio region hoes chipped from flinty rocks are found. These have an oval outline and some specimens show polishing due to long use. Notched flint hoes, sometimes called spades, are rare. Very few

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Plate 128



Certain types of New York harpoons. x3/4. 1, 2, 3, 4, 6, 10 from lake sites; 5, 7, 8, 9, from Jefferson co. shore sites.

; that may be called flint hoes have ever been found in
k State.

ıgs. It is believed that certain Indians excavated pits in the
l erected dome-shaped lodges over them covering the bent
h saplings and intertwined withes. Afterward the whole
red with thatch earth and sod. The Eskimo and certain
the United States have done this in historic times. When
vork supporting the structure rotted away there was left a
ınded by a ring of earth. Hut rings of this kind have been
Perch lake in northern New York, and at Findley lake,
ua county.



Fig. 58 Rock carving, Colliers

ːions. Rock inscriptions by incision and by painting are
·w York. Some occur along the St Lawrence, the Hudson
Iohawk. The famous Indian rock at Esopus is a good
f a rock inscription, but it is recent, as the gun held in the
ıand proves. A rock drawing near Colliers seems more
, and consists of an owllike figure outlined by incisions in

the soft rock. At Cedars on Black lake are painted figures and areas on the surface of a rock that rises sheer from the water. The color is iron oxide and has withstood the weather and the ravages of time since the earliest settlers remember. The New York Indians seem to have confined their inscriptions to more perishable materials than the faces of cliffs.

Jasper. A variety of opaque chalcedonic silica. In color it varies from light yellowish to deep yellow, orange, red and brown. Some forms are greenish and may be mottled with red. Indeed, one flake of jasper may reveal several colors. This fact and its good chipping qualities made jasper a favorite material for aboriginal implements. Jasper quarries have been found in Lehigh, Bucks and Berks counties, Pennsylvania, where the material occurs in pockets. Several hundred of these quarries show evidences of aboriginal working.

Maps. For charting the locations of archeological localities collectors will find the topographical sheets issued by the United States Geological Survey particularly valuable. These maps may be purchased from the Director, U. S. Geological Survey, Washington, D. C. A request should be first made for a key map showing the various quadrangles in New York that have been mapped. From this key map, which is sent free, the particular section of the map desired may be selected.

In charting sites the characters used should be uniform with those in this bulletin. (See the county maps in part VI.)

Metates. Metates are slabs of some sandy shale, limestone or other tough rock having one or more surfaces slightly hollowed out as a grinding surface for corn or other substance. Some are regular in form or are slightly shaped but most of them follow the natural fractures of the rock, the only modification being the surface depressions. Most of them are subrectangular in form. An examination of a considerable number of metates leads to the conclusion that the substance pulverized upon them was cracked with the muller and then rubbed with it into the desired fineness. Some metates have grinding faces on both sides. Sometimes one face has a smaller and deeper hollow; in other instances it seems to have been an anvil face.

Metates were probably used in shallow baskets of bark or upon skins that caught the pulverized substance as it fell from the stone. In this manner dry foods could be reduced or powdered, paint pigments ground, burnt stone cracked for tempering potters clay and various moist foods and raw fabrics, pulped. New York State metates usually have saucer-shaped depressions, in this characteristic

being unlike certain southwestern and Mexican forms, which are elongated. In the east metate grinding thus seems to have been done with a circular motion; in the southwest with a shoving and drawing motion.

Metates were used by the New York Iroquois until quite recently. Several informants have given us instances where metates were carefully kept by Indian families and even carried on journeys for preparing hominy or parched meal. In later years one turned up as a

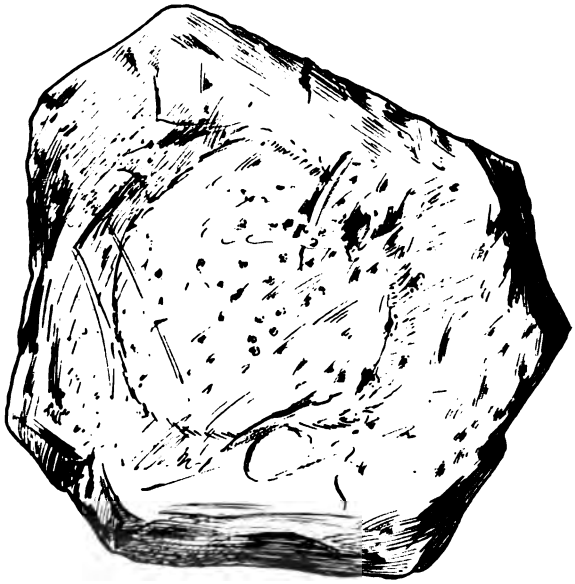


Fig. 59 Metate or mealing stone

weight used in a pickle jar. Mr M. R. Harrington found a metate in use by an Oneida family in Madison county. With it was a bark tray designed to hold the meal that was pulverized and fell from the stone. One metate and muller found by the writer while working with Mr Harrington on Shinnecock hills was covered with clay and cracked granite. Evidently the temper was being beaten into clay for use in pottery making. Other potter's tools were also found associated with this specimen.

Moonstones. A name applied by Willard Yager, Esq. to certain perforated disks found in the vicinity of Oneonta. These disks have a large central perforation and thirteen small holes drilled about the edge. The central hole is bounded either by circles or by crescentric

Mexican forms, which are
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mealing stone

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Willard Yager, Esq. to certain
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:en small holes drilled about the
ither by circles or by crescentric

lines. Mr Yager reports these stones from various localities and having been found by reliable persons *in situ*. The drilling, ho ever, is modern and done by steel tools, but this need not arg against their use and even manufacture by the Indians of the Susq hanna valley, for these Indians still lingered in the vicinity si years ago. Figure 60 illustrates two of the Yager specimens fr Oneonta plains and from Afton lake.

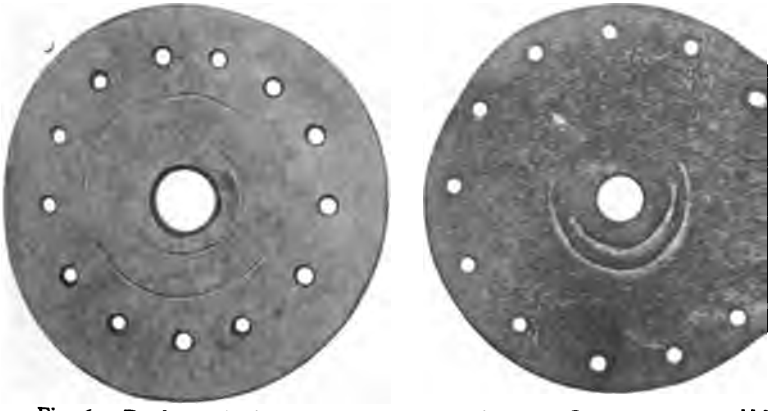


Fig. 60 Perforated disks or "moon stones," from Otsego county. W Yager collection. x⅞. The drilling appears to be modern.

Mortars. Mortars are usually hollowed-out boulders of vari sizes. Some mortars were made in huge boulders and were portable; others were hollowed out in rocks of such a size as mi with some effort be carried. The cavities vary from slight sauc shaped depressions to deep hollows with considerable capacity. common as mortars must have been among the aborigines only a f are to be found in collections. This may be due to the difficulty transporting them to the cabinet or to the fact that they are re rare, or to both reasons. We have seen mortars in stone walls barn foundations, in well tops, in barnyards and dooryards as chic troughs, in creek beds where they had tumbled from village s above and we have excavated them from their original position lodge sites.

In certain localities a century ago it was a popular thing to h dog and chicken bowls made from stone by blacksmiths. There a considerable number of these in the Genesee valley, some of th being regarded as "Indian mortars." Most of them are easily tinguished by the signs of metal chisel strokes.

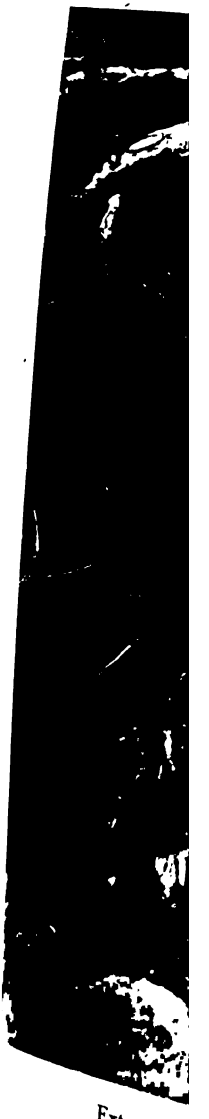
Mortars made in small cobbles sometimes resemble bowls, or even cups. Certain forms from the Hudson valley are small and no heavy pestle could have been used in them.

The people who used stone mortars very likely as frequently used forms made of wood. Wooden mortars continue in use today among the New York Iroquois.

Mortuary customs. The New York Indians had several methods of disposing of the remains of the dead. The simplest disposal was to place the corpse in a shallow pit or grave and to cover it with earth. This is simple interment. A second method was to wrap the body in skins and place it on the ground, inside of a small bark house or skin tent. A third method was to wrap the body and place it in the branches of a tree or on a scaffold. Another method was to cremate it, and still another to place it in a canoe or submerge it in the water. Secondary disposals were to remove the bones of the dead from trees, graves, or grave houses and place them in individual bundles for reburial, or in large ossuaries or pits where numerous remains were deposited.

Bodies of the dead were placed in graves according to fixed customs. Most of the earlier interments were in the *flexed* position; that is, the corpse was doubled up on one side, the knees being drawn toward the chin and the hands put together beneath the cheek. This position is a universal one employed by most primitive peoples. A few burials were made with the corpse placed in a sitting position, the skull being uppermost and near the top of the ground. Such burials are rare in New York. Many persons mistake the flexed posture for the sitting posture. Stone grave burials are usually straight, the body being extended and on the back. Some midcolonial or late colonial burials are also straight. Early burials have few artifacts with them, the exceptions being mound and stone grave interments. The early Iroquois buried little of stone or bone with their dead but after the opening of the European period lavished their material possessions upon them that the spirits of the objects might go with the departed.

Many graves have pits above them, indicating watch fires. The Iroquois in some instances kept the watch fire burning for ten days. Both the Algonkian and the Iroquois believed in ghosts and in the influence of departed spirits. The spirits of evil persons were thought to become even more terrible after death. Some spirits, it was thought, entered the bodies of birds or animals. (See Ossuaries.)



Extended bu

27

Plate 129



Extended burial, Silverheels site

Mullers. Mullers were used in connection with mealing stones or metates, as their name implies. Usually they consist of discoidal stones of a size that might be conveniently held in the hand for rubbing on the mortar. Some mullers are nicely shaped and have smoothly polished surfaces. Others seem to have been combination hammers and mullers. Hammerstones, mullers and game disks grade into one another in such easy stages that it is sometimes difficult definitely to give a use name to a specimen. Plate 130 shows certain types of stone balls and mullers, all from New York.

Mutilation. Certain articles seem to show deliberate mutilation. Among the conspicuous examples are owl pipes of stone. Very few pipes having the owl effigy still have the head intact. Plate 48 shows two with a decapitation and figure 61 illustrating this paragraph shows one from the Susquehanna valley that is headless. There are too many such pipes scattered through New York collections to admit of a uniform answer of pure accident. The preponderance points out a deliberateness in the mutilation. On Algonkian sites near Iroquoian sites there will be observed numerous broken gorgets. In the Genesee valley many hundred broken gorgets have been found, the fragments of which appear to have been the result of deliberate smashing. It is quite possible that there were certain beliefs that governed the breaking of articles, especially effigies and the special insignia of enemy tribes.



Fig. 61 Owl effigy pipe of striped slate from Black creek, Genesee county. Yager collection. The missing head is common to a large proportion of Iroquoian owl pipes. x7/8.

We may pardon the uninstructed minds of the aborigines for breaking the relics of their enemies but what shall we say to the man in civilization, who finding a fine spear point, deliberately mutilates it by passing a blade of steel over it to see it strike sparks or who breaks a specimen to "see what it is made of," or who carves his name and date on a fine slate ornament? We can smile as we forgive the housewife who paints a spray of forget-me-nots upon a beautiful spear, or who gilds a gorget, but science can not forgive the person who cuts or otherwise mutilates a specimen.



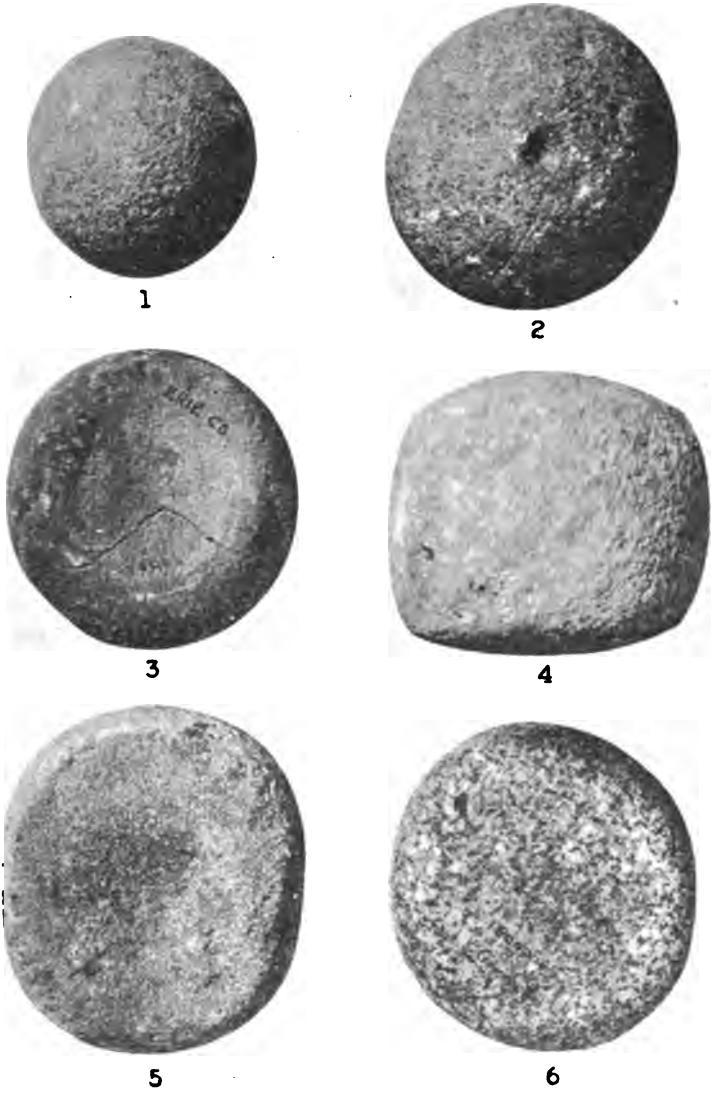
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Certain types of balls, ha
1, Pompey,—spheroidal; 2, hall
; Erie co.; 4, heavy hamm
Rock; 6, polished smoothin
rie co.

Plate 130



Certain types of balls, hammers, mullers, and smoothers, x½.

1, Pompey,— spheroidal; 2, ball with opposed pits, Glens Falls; 3, biconcave hammer, Erie co.; 4, heavy hammer or muller, Elbridge; 5, quartzite hammer, West Rush; 6, polished smoothing stone or game stone, Brasie Corners, St Lawrence co.

Needles, bone. Bone needles found in this region are thin, flat, slightly curved segments of bone 3 to 8 inches long, and one-eighth to one-fourth of an inch wide, with one, two or three holes centrally placed. They are not needles in the sense that the modern steel needle is, but rather shuttles or weaving needles, either for making coarse fabric or sewing the warp over rushes or husk. Bone needles of the sort we have mentioned are frequent in Iroquois sites, as at Cayadutta, Ripley, Richmond Mills, LeRoy, Sheldon Pompey, St Lawrence, Watertown, Atwell's and Christopher. The same forms have been found in Algonkian sites, as at Sag Harbor and Brewerton island. Identical forms were used by Ohio mound-building Indians.

New York State Archeological Association. An organization formed for the purpose of promoting the study of the archeology of the New York area. The founders were E. Gordon Lee, Alvin H. Dewey and A. C. Parker. Organization plans were completed in 1915 and early in 1916 a chapter named the Lewis H. Morgan Chapter was instituted in Rochester, with Mr Dewey as president and Mr Lee as secretary. In April 1918 Leatherstocking Chapter was instituted at Cooperstown. Chapters conform to a general code of laws and set of objects, but in all their affairs are self-governing. The general headquarters of the organization are in the Archeologist's office, State Museum, where records of the members are kept.

The stated objects of the association are as follows: (1) to promote the study of New York State archeology, ethnology and aboriginal history, and to record the results of such study for the benefit of science; (2) to preserve and protect the ancient mounds and localities connected with the Indians who formerly inhabited this State, and to prevent the destruction of these monuments, so far as possible; (3) to encourage the formation of scientific collections of aboriginal artifacts and to cooperate with the various museums within the State in the diffusion of archeological knowledge; (4) to establish a uniform system of records and standard catalog of New York State archeology, to establish a register of collections and collectors, students and sources of information; (5) to prevent the manufacture and sale of fraudulent specimens and to prevent the spread of erroneous statements concerning matters of archeological interest.

Ossuary. The term *ossuary* is applied to large deposits of human remains, especially those found in pits. In most cases the bones in ossuaries are neatly arranged, with the skulls arranged in a ring, the larger bones, as femora and humeri, piled in bundles, and the smaller

bones grouped in separate deposits. Frequently there is no external evidence of the presence of an ossuary; plowing deeply, trenching, excavations for foundations, or deliberate archeological research being the only means by which they may be found. Few have mounds over them. There are good historic accounts of the making of ossuaries. At certain periods of time the graveyards and other places for the disposition of the dead, were opened and the bones gathered to be placed in one spot. In this way, as the Indians expressed it, "the bones of those who knew each other in life will mingle in common dust."

Ossuaries have been found in the counties of Jefferson, Livingston, Monroe, Ontario, Onondaga, Genesee, Erie, Cattaraugus, Chautauqua and Niagara. In New York most of them seem to be Iroquoian, but some in Chautauqua county seem to belong to certain branches of Algonkian or mound-building tribes.

There is little of importance in ossuaries for archeologists. Few contain any relics. The bones may be of use to a student of anatomy or osteology. In opening an ossuary the earth should be removed and a trench dug entirely around the deposit before any bones are removed. A very careful drawing or a photograph from several angles should then be made. If possible expert archeologists should be invited to be present; where this is not possible the work of digging should be carefully done and some of the skulls and larger bones sent to some standard museum, preferably the State Museum, the American Museum of Natural History or the National Museum.

It is needless to advise the experienced collector that the bones should never be dug into with spades and scattered in a broken condition over the surface. This is neither scientific nor decent.

Patina. The term *patina* is applied to the weathered surface and the corrosion on the surface of archeological articles. Patination is due to the disintegration of the surface of the stone through contact with moisture, acid soils, gases, air, and other chemical and physical agencies. Articles of shell frequently have a brown patina, copper a light bluish to dark greenish patina, and various stones have soft chalky surfaces due to exposure and the action of acids or of leaching.

All specimens covered by patina should be carefully preserved. The patina should not be disturbed and every effort should be made to keep it.

Pendants. This term is applied for want of a better one. The pendant stone is shaped much like certain gorget forms but is much thicker and heavier. Some resemble celts, and indeed may have

been mounted as ornamental hatchets. One type has a small perforation drilled in at one upper corner. This type is always thick and rather too bulbous to be called a tablet. Other types have the hole either near the top or in a central position and part way down. The position varies from 2 millimeters from the edge to a point half way down. Plate 131 illustrates some of these pendant stones which, after all, may have been merely ornamental weights. All the specimens in plate 131 are in the Yager collection.

Pestles. Pestles are stones used for crushing or pounding substances in mortars. A true pestle is an elongated hammerhead. It is a shaft or handle with a pounding or pulverizing face and used in conjunction with a wood or stone mortar. Pestles are of two principal types: (1) long cylindrical shafts with grinding face at one end; (2) shorter shafts or handles with expanded grinding faces (sometimes called "bell pestles").

Cylindrical pestles are worked out by a chipping, pecking and abrading process. Some are more than 2 feet in length, others not more than 8 inches. Some are well rounded and polished and others only roughly chipped to form. Diameters vary from 1½ inches to 3 or even 4 inches. One class of cylindrical pestle has the upper end carved in the shape of some conventionalized animal head. These have been found in the Seneca River region, the Hudson valley near Albany and near Glens Falls.

Cylindrical pestles are found almost entirely on Algonkian sites of all periods. A few very early Iroquoian sites in the State have cylindrical pestles but they do not appear in later sites. To the contrary, pestles are found on the most recent of Algonkian sites and frequently old colonial families still have in their possession pestles that were found in the cabins of Algonkian Indians on their estates, or given them with the stone or wooden mortar. Mr M. R. Harrington has collected several such specimens.

Bell pestles are comparatively rare and most specimens have come from the Genesee valley above Mount Morris. A considerable number were found by Mr F. C. Crofoot at Sonyea. Bell pestles are generally found on old sites that may or may not be Algonkian. They seem to belong in some cases to the mound-builder culture.

Pigments. The Indians of New York without doubt had many kinds of paints and pigments. We can not attempt to describe the vegetable dyes and stains from the viewpoint of archeology, for none has survived burial and the reductions of time. The ethnologist will describe many that have survived and some that are still in use by the New York Indians. Of mineral pigments we can speak more certainly, as these belong to the realm of the archeologist

Plate 131



Heavy pendants of polished stone. x⅞.

1, Great Bend, Susquehanna river; 2, Mount Upton; 3, Oneonta creek; 4, Old Fort, Sidney.



Types of New York pestles. 1 and 2 are forms of the familiar cylindrical pestles; 3 and 6 are bell pestles from Livingston county and are from early Algonquin sites; 4 is a phalloid pestle from Brewerston, where they have been numerous: 5 is a specially well formed bell pestle from Oswego county; 7 is the upper portion of an animal headed pestle from the Seneca river region. Other localities are Albany, Rensselaer and Otsego counties.

Among the minerals that have been found in graves and in refuse heaps and which by their condition show use as sources of color pigments, may be mentioned the following: sedimentary iron oxide, limonite of iron, hematite, red and yellow ocher, graphite, cannel coal, copper, charcoal, burned bone, clays.

Paints were much used by the aborigines and were frequently articles of intertribal commerce. After the coming of Europeans much brighter colors were obtained and commanded good prices.

Pipes, smoking. Pipes have in general been described in another portion of this work (see pages 73–113). Pipes found in New York are of stone, pottery, fossils, bone and wood, and combinations of these materials. Stemmed pipes may be divided into the following classes: tubular, bent tubes, bowls at a slight angle, flat-stemmed bent tubes, monitor or platform, effigy etc. Bowls may be vase-shaped, effigies, ovoid etc.



Fig. 62 Onondaga stone pipe with a skin-wrapped handle, suggesting the manner of fastening the stems on heavy bowled pipes of the vase type. The stitching may have suggested the dash decorations found on certain clay pipes. x½

The most highly developed art of pipe-making was in the Ohio mound and Iroquoian areas. The mound-building peoples carved fine effigies in stone; the Iroquois modeled similar effigies in clay. When the Iroquois made stone pipes most of them were bowls without stems. Iroquoian stemmed forms seem to copy their clay pipes. On the other hand, certain decorations on the stems of clay pipes seem to resemble the stitching on the skin covering of the wood stem used on stone bowls (see figure 62). The manner of holding the ovoid or vase-shaped bowl, which generally had a large

conical opening, seems to have been to fit the socket to the hole and then secure the stem to the bowl by covering it with green rawhide which went around the bowl and again to the stem. The rawhide was stitched upon the stem, these stitches being more or less ornamental in some cases. Where the pipe bowl was thin the rawhide was in danger of being baked or burnt. It is quite probable, therefore, that there was a wooden projection at the back of the bowl holding the rawhide away from the bowl. With a flat stem this would produce the prototype of the monolithic monitor pipe, or at least a substitute for it. The Iroquois used pipes thus secured, in all probability. The specimen shown in the figure (figure 62) shows a large, heavy bowl needing no posterior projection. It is an Onondaga pipe and a very old one.

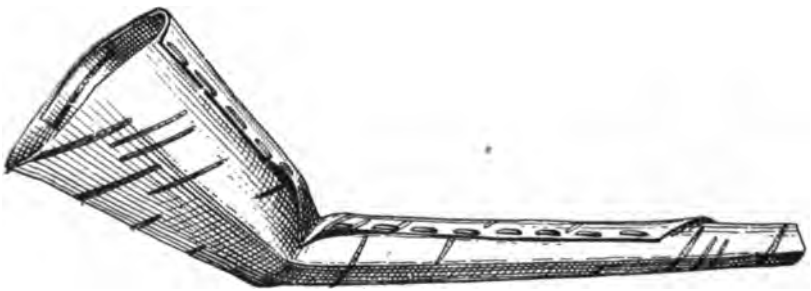


Fig. 63. Conical tube of birch bark stitched and bent upward. This may be the prototype of the Algonkian elbow pipe.

The tubular pipe may have been derived from prototypes of hollow cane. In northern climes wood was used. More durable tubes were made of stone and clay. Some tubes may have been derived from cones or tubes of thin bark (see figure 63). The tobacco may have been thrust in the larger end, which was bent, and the stem may have been flattened. Such a prototype seems to have given rise to the flat-stemmed stone pipe having its bowl at a slight angle from the bowl. It also seems to have been the pattern of certain Algonkian pipes where the bowl shows a distinct angular bend instead of a curve.

Phalanges. On nearly all sites yielding bone articles numerous phalanx or toe bones of various large animals, as the deer and elk, will be found. Many are in their natural state but others are worked in many different ways. The following are the principal forms:

1 Hollowed out and perforated at the smaller end for suspension (sometimes worked into cones)

2 Perforated at the smaller end and in several other parts for use in the "cup and awl" game (a use not yet obsolete among Indians)

3 Flattened on the surface naturally flattest, being frequently rubbed very smooth

4 Ground off on each side leaving only the sides to form a sort of open-work wedge

5 Hollowed and perforated like pipe bowls

6 Slit like whistles, still an incision being cut the length of the bone

Form 1 is still used by some Indians and as late as 1908 M. R. Harrington collected two strings containing fifty or one hundred specimens used as necklaces by the Canadian Cayuga. Flattened phalanges seem to have been wedges in some instances and show marks of binding thongs. Some look very much like the sliding orifice regulator used on Iroquois flutes, and these also frequently show the marks of the thongs that passed over them (see plate 40).

Polished slate culture. Three striking polished slate articles with their associated forms found in New York and contiguous territory indicate a definite cultural horizon, distinct from all others on the continent. These articles are the banner stone, the bird stone and the gorget. Associated artifacts are the barstone and the boat stone.

The material out of which these objects are formed is usually some form of slate, such as banded olivaceous slate; more rarely the material is steatite, marble, limestone, sandstone, quartzite, syenite and granite. Finished specimens are usually highly polished and indicate that they have been regarded as valuable articles. As no white explorer has left a record of having seen any of these polished slates in actual use, they have been termed "problematical forms" or "ceremonials." What they are we may only conjecture, but our attempts to guess must be within the bound of probability, guided by a more or less detailed knowledge of ethnology as well as of prehistoric archeology. Just when or how these articles originated we can not say but recent discoveries seem to indicate a greater age than at first supposed. If we are uncertain as to the time of origin we need not be so uncertain as to the time when they passed out of use, for that time seems to have been just after or co-incident with the entrance of Iroquoian tribes in this general area.

It is most important to observe that two divisions of the Indians used polished slates, one that indefinite branch that may have embraced branches of several stocks, known as the mound builders,

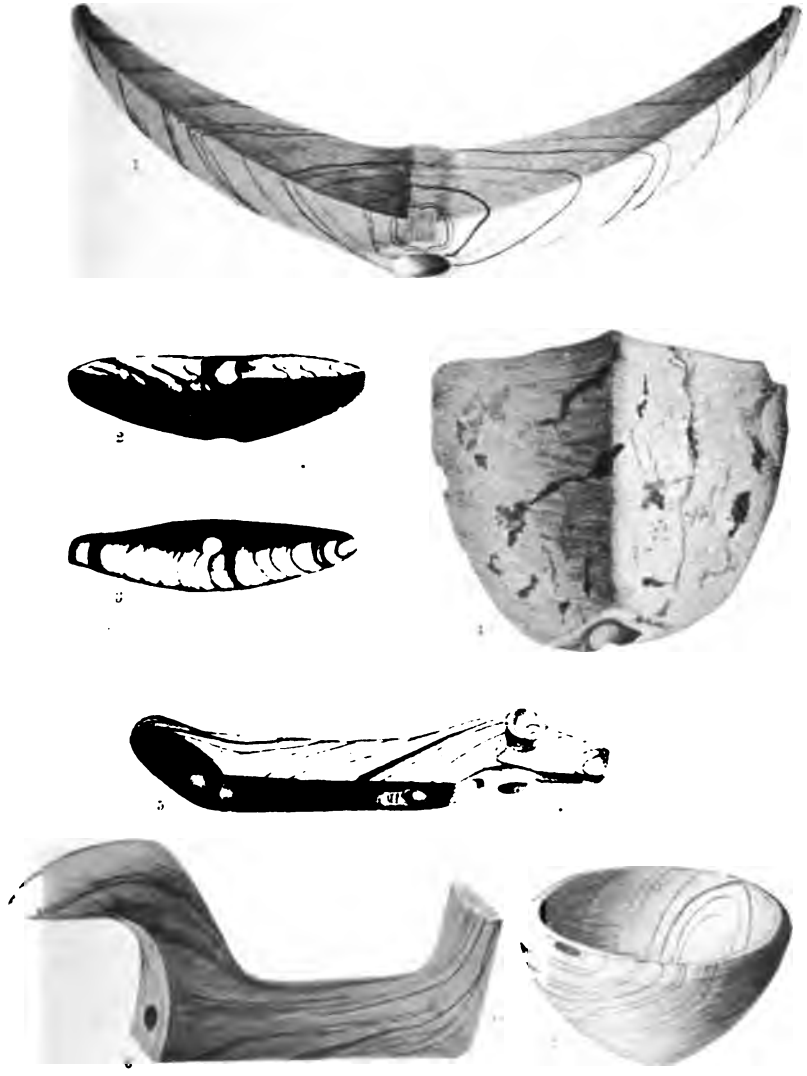
and the eastern Algonkian. This coincidence is significant and points out an interrelation of cultural factors. One might conclude that the Algonkian people were an offshoot of the mound builders, for Algonkins not only used polished slates, but used grooved axes, corded pottery and occasionally monitor pipes. At the same time there is a marked difference between a pure Algonkian site and a pure mound-builder site, and there was likewise a corresponding difference between the habits of the two peoples. The known Algonkins were less sedentary and culturally poorer.

It may be suggested that this close similarity of artifacts, despite a difference of degree of culture in other things, may even yet indicate that some unknown Algonkian tribe or tribes were mound builders, and that from a cultural center these hypothetical Algonkins radiated a cultural influence upon their less developed kinsmen. To this suggestion we may reply that, granting that some Ohio Algonkian tribe did build mounds and had the mound culture, there is yet good evidence that divisions of other stocks were also mound builders and users of the polished slates. It may be that certain Iroquoian tribes and certain branches of the Muskhogean people were also mound builders, which, then, would make the polished slates the mark of a cultural status and not a distinguishing tribal evidence.

Pottery. This term is used to include all articles made of baked clay or terra cotta. In a narrower sense the term is used to describe jars, pots or vessels of this material. Some have called soapstone "pottery," but in this work such a term is not applied.

In the production of pottery, the New York Indians dug the clay from natural sources, carried it to their workshops or places of manufacture and then proceeded to prepare it for molding. From facts supplied by ethnologists, supplemented by archeological evidence, the clay seems to have been pounded, mauled and kneaded on stone slabs. The tempering material was then mixed into the mass. Tempering material consisted of coarse sharp sand, pulverized mica schist, burnt granite, cracked shells, and other similar substances. Cracked chert has been found in pottery. When these substances had been thoroughly intermixed the clay was rolled into ropes and coiled into the shape desired. The clay was kept moist and the ropes were united by paddling the outside and scraping the inside with a stone spatula. Some pots were built up at the bottom within a gourd bowl. Others seem to have been hung in grass basket-bags or nets during the drying process, and show the impressions of the cords, as for example the pot in plate 107. Many of the smaller Iroquois pots of the later period seem to have been molded over gourds or calabashes and baked with the dried calabash inside, this

Plate 133



Polished stone articles from central New York. Otis M. Bigelow collection in State Museum. x½.

burning in the process. The later Iroquoian pots seldom show any cord markings. Most of the Algonkin pots are covered with cord lines or an ornamentation made in imitation of cordlike impressions stamped in with a cord wrapped or a notched paddle (see plate 13).

The various types of pottery are described under the subjects of Algonkian and Iroquoian occupation (which see). Mound-builder pottery in New York is much like the Algonkian forms but the bowls are not so tall and the mouths and necks appear more nearly Iroquoian than Algonkian in some instances.

The most highly developed pottery in New York is that of the Iroquois. Iroquois pottery pipes are by far the best of any from any section of North America, revealing in general a more skilled craftsmanship.

Potters' tools. Tools found in such places as to indicate their use as potters' tools are shown in plate 134. They include bone smoothers and gravers, bone stamps, stone smoothers and shell scrapers. Other tools were metates, anvils, mullers, hammerstones (perhaps the kind that show no battering), and slicking stones. Tools that have perished are cord-wrapped paddles, checkered wooden paddles and other implements of wood, cords, twigs etc.

Consult Holmes, Pottery of the Eastern United States, Report of the Bureau of Ethnology, No. 20; Beauchamp, Earthenware of the New York Indians, N. Y. State Museum Bul. 22; Wren, North Appalachian Indian Pottery, Wyoming Historical Society, 1914; Harrington, Last of the Iroquoian Potters, N. Y. State Museum Director's Report.

The red paint culture. The term *red paint culture* is one applied to evidences of a certain type of prehistoric occupation different from others. The name has been used as a descriptive term because of the deposits of red iron oxide or red ocher found in the graves of this culture.

Excavations of certain ancient burial places in Maine by Willoughby, Moorehead and others, have afforded the data by which this type of culture is differentiated. The artifacts associated are plummets (so-called), native copper beads, gouges, adzes, celts, (some) slate arrow points, a few chipped stone arrows (notched), and stone knives. Other characteristics are certain flat and spatulate pebbles, nodules of iron pyrites, and quantities of red ocher. To quote Willoughby, "The use of this pigment seems to have been universal among the Indians whose remains are found in these cemeteries. It varies in color from pink to deep red. In some graves only a small quantity had been deposited which the percolating water had mixed with the surrounding sand and gravel. In other graves a

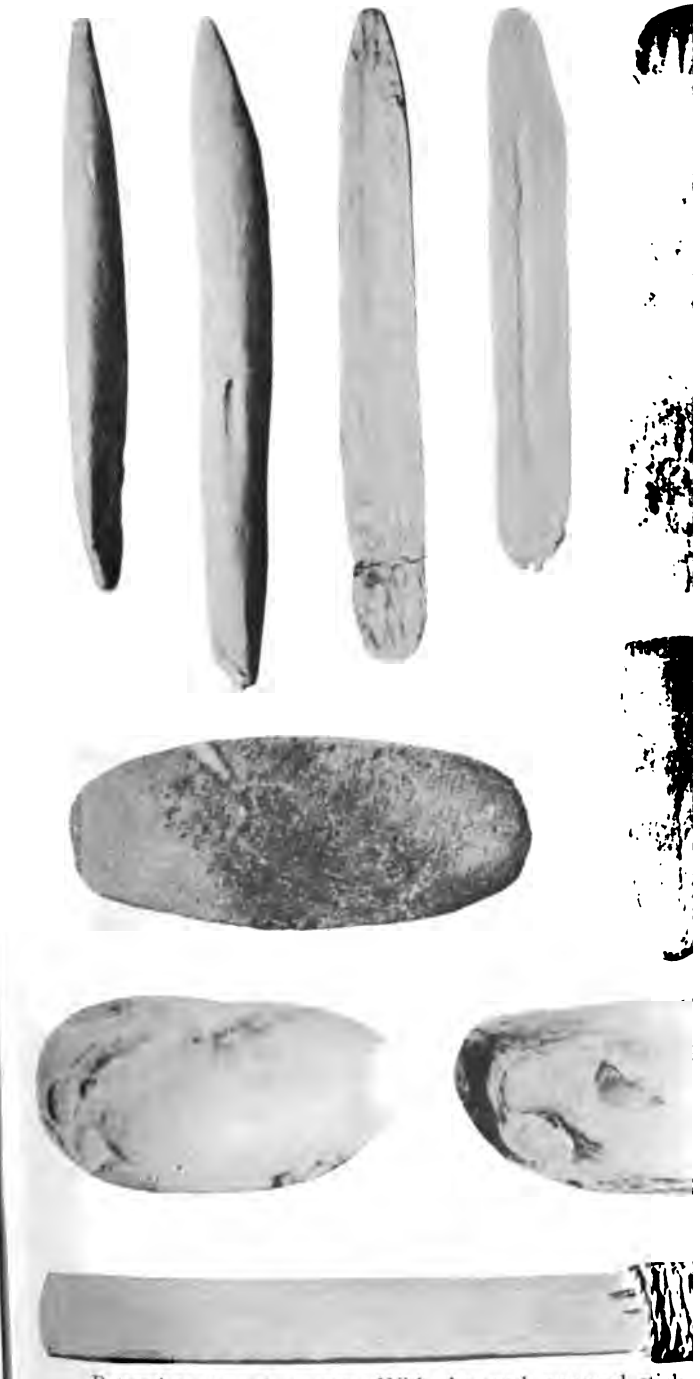
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Plate 134



Potters' tools and stamps. With the cord wrapped stick
(a reconstruction) the cord impressions found on certain Alg
can be exactly imitated.

quart or more of pure dark red ocher was found with various implements lying upon it or buried within it."

Not many "red paint" localities have been examined in New England outside of Maine, but there are probably other sites extending westward to the shores of Lake Champlain, where plummets and gouges of this culture have been found.

In New York no graves have as yet been described. The implements associated with this cultural horizon occur all along the Seneca river, near Oneida lake, along the Oswego river, follow the coast of Lake Ontario north to the St Lawrence, and along the St Lawrence until it passes out of the State. Still farther eastward the occurrences are along the west shores of Lake Champlain and about the headwaters of the Hudson. In all these localities plummets occur, but not so abundantly as about Oneida lake. Grooved axes and polished slates, as gorgets, do not occur on "red paint" sites, except intrusively.

Just who the red paint people were it is not possible to state definitely. They do not appear to be Algonkian or even Eskimoan. In the Maine localities they are regarded as the most ancient of all aboriginal occupants, antedating the coming of the Algonkian tribes. It has been suggested that the culture is that of the Boethuck.

We have just enough of the red paint culture in New York to suggest its further study. More than likely many specimens of its artifacts have erroneously been associated with those of Algonkian or so-called Eskimoan origin.

Runtees. Runtees are discoidal ornaments of sea shell having two parallel holes drilled from one edge through the object diametrically to the other edge. They are sometimes found with plain surfaces but generally have an incised or picked-in ornamentation of some kind. The ornamentation may consist of a cross, a star, circles or other figures. The name, runtee, is first mentioned by Beverly in his History of Virginia, but it is probably derived from the French *arrondi*. Runtees are rather rare in New York and occur almost entirely in the Iroquois sites of the late seventeenth and early eighteenth centuries. Among the Algonkian tribes it is said that they were highly valued.



Fig. 64 Shell runtee from an Ontario county, Seneca grave

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Plate 135



Certain types of shell effigies from New York localities. x7/8.

Shell pendants. The midcolonial Iroquois used shell pendants of various forms in great numbers. Grave discoveries indicate that these were used mostly on strings of shell wampum. Usually they were shaped in the effigy of some bird, fish or animal. A few take the human form, especially the face, and some resemble the beaks or claws of birds and animals. A few have the form of serpents. The drilling of most specimens indicates that they were made after the coming of the whites, by the aid of steel tools. It is even possible that commercial manufacturers of wampum made some runtees and shell pendants for there is a remarkable similarity and almost mechanical likeness of certain patterns.

Shell pendants of the kind described have been found in the colonial Onondaga county sites in large numbers, not only in graves but in refuse dumps. Among the Seneca they were used in all the midcolonial and late colonial villages, and numerous specimens have been found on such sites. Large numbers have also been found on Cayuga sites. Good specimens, however, are rather uncommon, since exfoliation gradually has destroyed many that otherwise would have remained. The Heye expedition found shell pendants of unusual form and in a fine state of preservation in a Minsi cemetery in New Jersey. For types found in New York see plate 135.

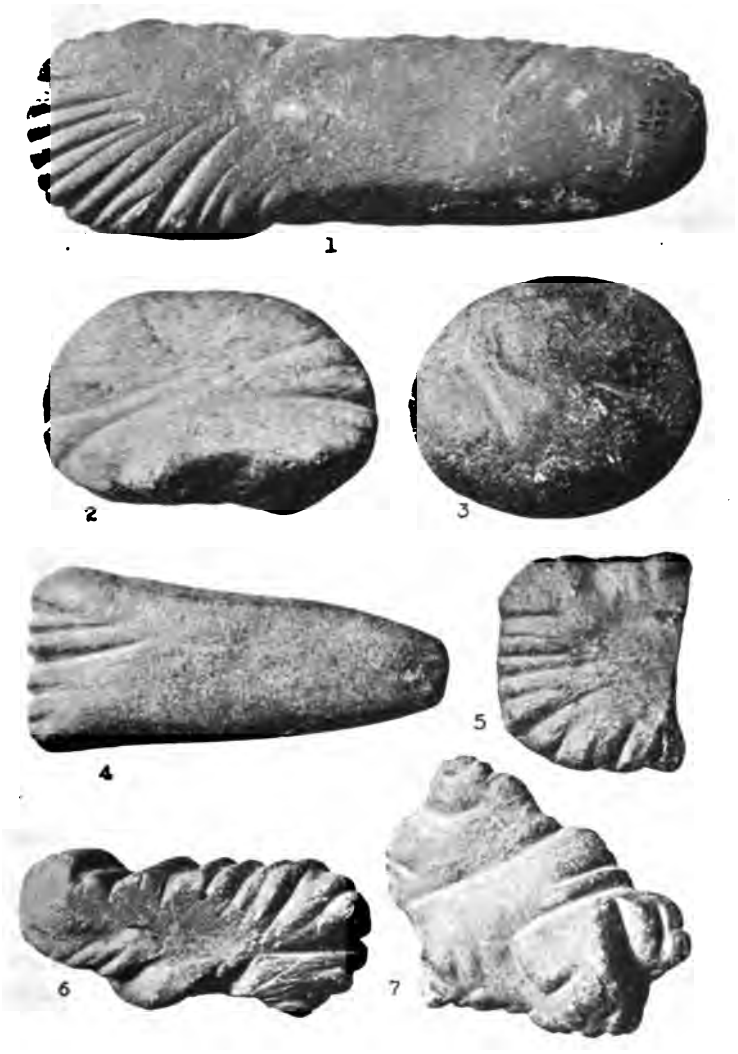
Sinew stones. The so-called sinew stone is a pebble or fragment of sandstone having its edges so seamed and worn as to resemble a flat piece of shoemaker's wax. Specimens appear to have been purposely shaped by having the incisions sawed in by flint knives. The subsequent smoothing seems to have been done by the rubbing of sinews as in smoothing a bowstring or in sizing sinew thread. Sinew stones are usually of sandstone, though certain harder stones sometimes were used. Most sinew stones are broken when found and complete specimens may be considered among the rarer of aboriginal tools. There are instances where a broken celt or even a perfect specimen has been incised as to resemble a sinew stone. The New York State Museum possesses more than a dozen fine specimens of this type of abrading implement.

It may be seriously questioned whether or not sinew stones were used as their names suggest in all cases. An examination of certain types of broad-based projectile points shows that the bases are rubbed smooth, all the sharp edges being ground down. By taking a broad-based point and sawing the base into a sandstone pebble, grooves in the sandstone similar to those of a sinew stone can be made, and the arrow point base becomes smoothed as in actual ancient specimens.



Certain types of "sinew
Monroe co.; 2, Chenango va
valley; 6, Seneca river; 7,

Plate 136



Certain types of "sinew stones" from N. Y. Localities. x½.

1, Monroe co.; 2, Chenango valley; 3, Catskill; 4, Schoharie co.; 5, Chenango valley; 6, Seneca river; 7, Seneca river.

Skeletal remains. When Indian graves are found, especially those that appear to be precolonial, care should be taken to preserve the bones from wanton or careless destruction. An experienced investigator will carefully expose the skeleton in its entirety and will not pull out each bone as it comes to view, and thus dismember it and break the brittle bones. With the skeleton scientifically exposed the entire grave may be studied and the relative position of the accompanying objects noted. In this way nothing will be lost in the back dirt. When the general situation has been noted and recorded and drawings or photographs taken, the bones should be carefully removed and wrapped in some absorbent material. Great care should be taken to preserve the skull and to prevent the dropping out of the teeth. Skeletal remains are always of interest to the larger scientific museums, and should not be sent to historical societies. If there is scanty facility for taking all the bones, the skull should be taken together with any of the larger bones that exhibit any interesting features, as fractures, diseases or morphological characteristics. The investigator should look for evidences of platycnemia, platymeria and the perforated olecranon, illustrated in plates 137–142. If an investigation of the grave and the removal of its cultural contents alone is possible, common decency directs the respectful redeposit of the bones and their reburial. Only those of defective sensibilities will smash and scatter the bones as they root after relics. Such persons indeed are grave robbers of a very cowardly sort and have no understanding of either the purposes or the ethics of science.

Spearheads, flint. Spearheads are points designed to be placed on the end of shafts or handles and are used for piercing the bodies of human or beast enemies or game. A chipped stone or flint spearhead was tied to its shaft and probably also secured by a slot into which it fitted.

Stone spearheads are of varied shapes and sizes. Many so-called arrowheads in reality are spearheads or knife blades. While it is not always easy to judge the difference between a large arrow point and a small spearhead, a good general rule is to study the specimen as to its adaptability to the several probable purposes to which it could be applied. A heavy head takes the power of flight from an arrow. Arrow points are therefore relatively small, as all specimens found in shafts will show. Heavy, thick-stemmed points would not fit into shafts of arrows. Thick, broad stems therefore must have been employed for other purposes. If they would fit into a larger shaft, say an inch in diameter, the point may be a spear point or possibly the spike of a war club. Some specimens, however, are plainly spears of some sort. It must be remembered that there were several

Plat



Two views of skull 4503, f

graves are found, especially
are should be taken to preserve
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e point may be a spear point or pe
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Plate 137



Two views of skull 4503, from grave 6, McCullough site. Bre

Plate 138



Two views of skull 4548 from ossuary. Index, 77.7. Gerry site.



Platycnemic tibiae fro
tibia has an index of 54.





uary. Index, 77-7. Gerry site.

Plate 139



Platycnemic tibiae from the McCullough site. The tibia has an index of 54. From pre-contact site, Gerry

Plate 140



Platymeric femora. The third trochanter is especially noticeable in the third nd fourth specimens. From McCullough site, Gerry.



er is especially noticeable in the third
h site, Gerry.

Plate 141



Plate 142



rom the McCullough site, Gerry, Chautauqua county. Note the olecranon cavity in all but the first specimen.

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Some of the finest work
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Specimens. All archeol
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To the amateur collector
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will be able to determine
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tion of a page of prehistory

kinds of spears, one for game, one for fish and one for ceremonials. These varied also in their notching, size and shape.

Some of the finest work of the stone flaking art is found in spearheads. Some reveal the hand of a master craftsman in their delicate chipping, symmetry and beautiful notching. The kind of material used regulated to a large extent the size and form of a point. Thus expert workers would obtain material from traders or go on expeditions to the best quarries for it.

Specimens. All archeological specimens must receive proper care. They should be handled gently to prevent their breaking and the more delicate objects should be wrapped in soft paper or cotton. Bone, shell and clay articles should be allowed to dry before handling to any extent. As each object is found a label should be prepared and an entry made in a notebook kept as a field record. Reference should be made to the site and the exact spot where found. Topographic maps for this purpose may be secured from the Director of the United States Geological Survey, Washington, D. C. All specimens should be neatly numbered and a corresponding index card (see figures 65 and 66) or catalog entry prepared. Specimens protruding from river banks or from gravel beds, where they are deeper than 4 or 5 feet, must be photographed *in situ*; that is, before removal from their original position.

To the amateur collector let it be said that each specimen is a part of the record of some human activity. It is important that these records and evidences be carefully kept. Each specimen is a letter or a word from the book of man's prehistory and our duty is to gather all these lost words and missing letters and place them where those best able to translate and piece together such things will be able to have access to them. Specimens from each site examined should thus be kept together in order that the objects of one particular place may be properly correlated. To place all arrowheads or potsherds or other special objects together regardless of the sites from which they came, fails to tell the story that archeology would unfold. To collect in this manner would be like trying to restore a book that had been torn apart and scattered, by collecting all the letter *a*'s or letter *z*'s in boxes apart from each other. Nothing could be determined by such a method. The collector, to group the elements of his story as he digs it from the earth, must put his notched arrowpoint, properly numbered and recorded, with the potsherds, hammerstones, axes, and other implements from the identical site. In this way he will be able to determine the material culture of the site. This information with its illustrative material then affords the reconstruction of a page of prehistory. It is the constructive, scientific method.

F	FIELD RECORD
18	Object 3 rude flints
19	Site High Banks, Erie Co.
20	Lodge pit, tr 6 at 48 ft on W. side
	Dimensions 12x16 Depth 21 in.
	Remarks Lodge heap 4
	Found by E.R.B.
	Packed by A.C.P.
	Box 6

Burial no. 1 Site Westfield

Depth 31 Dimensions 48x30

Face toward E Head top N.

Skeleton on left side

Position flexed

Condition disintegrated

Soil Gravel

Objects One biconcave disk of stone, small

Record and date Field notes 1910

)5 Specimen field cards used for recording archeological data

In seeking to make a scientific
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cies subject to human control mus
ire-broken stones, broken potter
ior the marrow, charred corn an
must be regarded as of some ir
gathered for the collection, th
placed on the record of the site
ground is thus provided for the

Museum no.	Col. no.	
ESEUM		Object Pipe (2 faces, (
34027	Tk 1	Locality Belmo Philip Cr.
		Collector GEOR
		Record and dates Donation. of Buffal
Number Sept. 1918	ed 18,	Remarks Illu Displayed

Fig. 66 Specimen museum catalog

It should be religiously rer
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others may be able to know fr
grave, mound, refuse heap or
facts are far more importan
date. The distinguishing ma
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specimen is exhibited a sep
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collection carefully catalogec
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In seeking to make a scientific collection of archeological specimens, every article showing the work of human hands or of agencies subject to human control must be regarded as a specimen. Thus fire-broken stones, broken pottery, flint chips, animal bones cracked for the marrow, charred corn and beans, and other apparent refuse must be regarded as of some importance. If all are not actually gathered for the collection, the precise quantity noted must be placed on the record of the site as kept by the collector. A background is thus provided for the more attractive specimens.

Mus. no.	Col. no.	ARCHEOLOGY
MUSEUM 34027	Tk 1	Object Pipe of baked clay 2 faces, one on front; one on back. Locality Belmont. Lot 20 Amity s. of Philip Cr. Fortification Collector GEORGE L. TUCKER Record and dates Museum acquisitions 1918. Donation. Other specimens in Museum of Buffalo Consistory, A.A.S.R.
Numbered Sept. 18, 1918		Remarks Illustrated: Arch. Hist. N.Y. Displayed: Case Q. Type. Early Iroquoian

Fig. 66 Specimen museum catalog card used for recording data of specimens

It should be religiously remembered that the first duty of a collector is to mark his discoveries in such a way that both he and others may be able to know from whence they came. Place, whether grave, mound, refuse heap or surface, should be mentioned. These facts are far more important than the name of the finder and the date. The distinguishing mark on the specimen should be small but legible and be on the most inconspicuous part of the object. If the specimen is exhibited a separate label may be prepared, but this should be entirely aside from the catalog card or entry record. A collection carefully cataloged may become of considerable importance, but a collection simply gathered because the objects are " Indian

relics," is a monument to a crime against knowledge and truth. We can not emphasize this fact too strongly, for the relics left behind by primitive man and his descendants of the earlier ages are all too few. Important clues and a complete chain of evidence may be forever obliterated by the careless and ignorant collector. Collectors have no moral right to destroy the records that ancient man took centuries to write into the soil, through his enduring artifacts. They do have a heavy moral obligation to preserve every circumstance concerning their finds.

The amateur collector should early get in touch with recognized museums and scientific societies and subscribe to the various archeological periodicals. Such museums as the New York State Museum at Albany will always welcome correspondence from collectors and will freely give advice. Nearly all museums issue bulletins and guide books of value to collectors. Archeological associations, such as the New York State Archeological Association, with headquarters in the State Museum, the Ohio State Archeological Society, the Wisconsin Archeological Association, and others, issue interesting publications. General works such as Handbook 30 of the Bureau of Ethnology, Washington; Moorehead's "Stone Age"; Wissler's "American Indians"; and Fowke's "Archeological History of Ohio," will be found of considerable value to students.

The moral of this "word with amateur collectors" is that no one should be a mere collector of aboriginal artifacts. The collector must likewise be a student who carefully records the information that chance or diligence unfolds. By means of a little care and study the whole subject will appear in a different and higher light; the collector while satisfying his instinct of acquisitiveness will at the same time become a contributor to the science of archeology, and thus a real benefactor.

Spoons, bone and antler. Bone and antler spoons have been found in Iroquois sites, especially in graves. The bowls are capacious but seem small compared with the Iroquois wooden spoons. There were three or more bone spoons found on the Dann site near Honeoye Falls. One had the figure of a swimming beaver in relief on the back of the handle.

Antler spoons have been found on the Marsh, Gandagaree site near Victor, at Boughton hill and at St Lawrence. One came from an early Algonkian site near Brewerton (Beauchamp, Horn and Bone, 315–16). Spoons of this kind may be considered rare.

State Museum. The New York State Museum is the outgrowth of the Natural History Survey originally authorized by the State Legislature in 1836. The Museum has two functions: first, that of

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"; Wissler's "American
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two functions: first, that of

the collection and display of the natural resources of
second, the prosecution of scientific research along th
of natural history, so far as these subjects pertain to t
the boundaries of the State. These embrace geology
mineralogy, entomology, zoology, botany, archeology

The present housing of the Museum is in the S
Building in Albany. Here are the offices of the Mus
here in the longest and largest exhibition halls in Al
played the various collections of objects illustrating t
animal, insect, plant and the aboriginal phenomena
The Museum is a free institution devoted entirely to
tion. It belongs to the people of the State and const
index to the natural products of the Empire State.

Many thousands of citizens and indeed travelers
the world have visited the exhibits. As many as six
sand have visited the halls on a Sunday, the yearly t
being from 200,000 to 300,000.

The popularity of the institution is attested by
gifts it has received from public-spirited citizens.
notable gifts since 1912 have been the Indian habit
Dewey Iroquois Collection, the Fuertes bird painti
Reservation, the Cryptozoon Ledge, the Stark's Kn
Squaw Island in Canandaigua lake, the Arnold birc
Peck memorial collection of mushroom models. Th
many smaller gifts, including individual specimens in
departments.

The section of archeology has undertaken a surve
ological localities of the State and has conducted ma
of various important sites. The collections occupy t
halls running the entire length of the building. Th
devoted to the ethnology of the Indians still living w
Here are exhibits of the costumes and clothing of th
Algonkin, cases containing specimens of their do
weapons, games, textiles, silver work, bead work
articles. Here also are the official wampum belts
league. In the Myron H. Clark Hall of Iroquois Et
habitat groups consisting of actual life casts of Iroc
Indians. Each group represents some activities con
culture of the aborigines. They are viewed throu
windows and the impression is that of looking directl
window and at a natural scene. These groups repr

warfare, council, ceremony, industry and agriculture and quickly give an impression of New York Indian life not possible to obtain in any other way. At the east end of this hall is a bark cabin fully furnished and of the type once occupied by the Indians of our State.

In the east mezzanine hall is the collection of archeological specimens. There are more than 12,000 articles displayed, including about 40 pottery vessels, 680 pipes, 250 polished slate objects, and all the varied forms of stone, bone, shell and copper articles that characterize the ancient material culture of the New York natives. The collections are arranged in several ways, as follows: (1) by localities to show the various parts of the State from west to north and south to east; (2) by types of implements in a classified order; (3) by cultures, as Iroquoian and Algonkian; (4) by methods of manufacture in which the processes of making aboriginal articles are illustrated; (5) by uses, in which the use of articles is explained.

The study collection consists of about 100,000 specimens, stored in drawers and cataloged. Most of the archeological material has been acquired since 1911, the old collections having been destroyed in the Capitol fire in March of that year. By gift and purchase the archeological section has added largely to its own field collections. Among the notable collections now on exhibition are the following: the Museum field accessions, the Raymond Dann, the Fred H. Crofoot, the Joseph Mattern, the Alvah Reed, the C. A. Holmes, the R. Van Valkenburg, the Vanderveer–Auringer, the Otis M. Bigelow, the L. D. Shoemaker, the Ward E. Bryan, the D. W. Thompson, the C. P. Oatman, the R. S. Loveland, the R. W. Amidon and the Alvin H. Dewey.

Each specimen is so cataloged as to give credit to its collector, but in a scientific museum such as this, specimens are placed in exhibits to which they logically belong, regardless of the collection of which they once formed a part. The object is to make an intelligent display of naturally related material and not to mass together unrelated curiosities. All the pages of each book of nature though found scattered over the surface of the land must be brought together, sorted and placed in order, that the story may be correctly read. Each specimen is a letter, a page or a chapter, important to our problem, and each is therefore placed where it belongs.

Several notable men of science have served the archeological section of the Museum in various capacities, among them Henry R. Schoolcraft, Lewis H. Morgan, Frank H. Cushing and William M. Beauchamp.

The archeological and the ethnological exhibitions of the S Museum have attracted many students of science, the method display and the arrangement of the specimens have been pronou as scientifically correct as it is possible to make them.

The State Museum holds out a permanent invitation to all people of the State to cooperate with it in making its exhibi complete course of instruction in the natural sciences with whi deals.

The Museum maintains a staff of men, as well as special ex employed from time to time. The Director of the Museum is the State Geologist and the State Paleontologist, having assistan each of these branches. Other members of the staff are the mi alogist, the botanist, the entomologist, the zoologist, the taxider and the archeologist.

Stone age. The term " stone age " is applied to the long pe in the history of human culture during which the most durable made by mankind were of stone. With tools for pounding, brui pulverizing, scratching, sawing, cutting and scraping, man was to reduce softer material and even rocks to desired forms. man made hammers, mullers, flint knives and scrapers of s With his stone hammer he knocked out a spear head; with an e flint, sawed away on a sapling and made a spear shaft.

It must not be supposed that during the so-called stone age were no other articles beside those of stone, for in fact early man used bone and antler tools and ornaments, used articles mad shell and wood, and probably dressed in the skins of various ani To the race-mind, physically endowed as it was with hands simple use of one instrument with which to pound and one which to cut, be the processes ever so laborious, proved a wond stimulant to further progress.

The earliest evidence of man's use of stone tools dates back a period thought to be nearly a million years ago. The rude found in the strata lying between the tertiary and the quater are called eoliths (dawn stones) in allusion to the dawn of ma culture. With the further development of man's manual at after thousands of years came an advanced type of flint implem known as paleoliths (old stone). As progress continued chi stone implements improved until polished chopping blades or ha heads were made. In Europe this period is called the neo (new stone). The neolithic period in Europe is divided into se sections each characterized by the types of blades found. So f

the New York area is concerned, we can not use the same terms employed by European archeologists, for no evidence has yet been discovered to prove the presence of paleolithic man. Our "stone age" is, however, comparable with the European "neolithic" without being susceptible to the same subdivisions.

It must always be kept in mind that what we know of the stone age culture of any people is only a knowledge of certain durable stone artifacts, the use of which may or may not be obvious. Stone implements may have been and probably were the least in number of all objects possessed by ancient man. We know nothing of his clothing, articles of wood and of thongs. On rare occasions we do find some article of worked bone, but as a general thing all things less durable than stone have rotted away. We must therefore use caution in attributing extreme poverty of possessions to the ancient race whose stone implements we find; when we look at his hatchet head and his spear point we must vision all that these things imply. The hatchet had a handle, the spear a shaft. These were of wood and the thongs of the deer or shreds of tough bark bound the heads to the handles. Our stone age men had skin robes, footgear, head dresses, pouches, utensils of bark, objects hewn out of wood, and they had dwellings where they lived with their women and children.

While the advanced races of Peru, Central America and Mexico made articles of molten and cast silver, gold and copper, the numerous tribes to the south and to the north, at the time of the Columbian discovery, were living in the stone age. The aborigines of the New York area were all stone age people. Cartier, Verrazano, Hudson and Champlain all saw the American stone age man.

Civilized man of today still depends upon stone for many useful and ornamental purposes, but has abandoned it as a material for cutting and pounding in industrial purposes. For mulling and for abrasives, stone is still used in ways not entirely different from those employed before the "age of metals."

Trade articles, European. With the coming of Europeans to America there was a great change in the material culture of the New York Indians, and in the culture of the American aborigines in general. Among the evidences of European contact and trade may be mentioned glass beads of many sorts; brass articles, as kettles, bracelets, beads and other ornaments; iron articles, as knives, hatchets, tools, scissors, chisels, chains, tomahawks, spikes, guns, swords etc.; lead articles, as bullets, seals, effigies etc.; glassware, as bottles, sheet glass, ornaments etc.; earthenware, as glazed pottery, white clay pipes, dishes etc.; stone articles, as European flint, chalk

etc.; certain articles of gold, silver, pewter, zinc, tin. Articles of fabric of European origin are sometimes found in graves, preserved by contact with copper or copper salts.

Articles made by Europeans, while interesting in a general way, have little value in assisting our understanding of aboriginal culture. For this reason we have not described the numerous articles and materials of European origin found on historic Indian sites. They have little bearing on archeology save to mark the presence of the white man and to point out the beginning of the decay of native material culture.

Consult Beauchamp, Metallic Ornaments, Metallic Implements of the New York Indians, Bulletins of the N. Y. State Museum; Parker, Origin of Iroquois Silversmithing, American Anthopologist, Vol. XII, No. 3.

Tubes, stone. There are several types of stone tubes found in New York. One type is a short flattened tube with rather thick walls and drilled with a uniform hole throughout. Some specimens



Fig. 67 Slate tube from Randolph, Cattaraugus county

look much like a bicycle handle grip with one end smaller than the other. A second type is cigar-shaped and longer than the former. These have flaring mouths, reamed out, leaving thin lips. The hole at the smaller end is much smaller than any other part of the tube, suggesting that this type was a smoking pipe. The third form is a nearly uniform tube with a reamed out orifice at one end and an outward flaring flat end pierced with a small hole at the other.

The cylindrical cavity is large and the walls of the tube thin, so thin, in fact, that many have collapsed in places due to weathering and the natural rotting of the stone. A few of this type were made of a stone that would take a high polish, but most of them are of dull lime or sandstone. Tubes are comparatively rare in New York. They have been found on the surface and in graves, particularly, stone box graves. Their range in this State is coextensive with the bird stone and gorget.

Like all other polished stone "problematicals" we may only conjecture what tubes were used for. It has been suggested that they were used for smoking pipes, drinking tubes, sucking tubes for drawing blood from incisions, shaman's paraphernalia, whistles, medicine cases, and for several other purposes. On the Pacific coast cigar-shaped stone tubes are used for smoking pipes; tubes of bone and horn were used in historic times for sucking blood or in shamanistic practices. These stone tubes have been found in graves filled with red or black pigment, and others have had internal clay plugs so placed that by blowing at one end a loud whistle was emitted. Tubes may have had various uses according to type. When we try to guess the uses of the Indian's creations and to fix one specified purpose upon one of them we must remember the humble hairpin of today and then challenge archeologists of the eons to come to determine even a dozen of its manifold purposes, and we may likewise prepare our ghosts to rise and confound him if he dares to say that only one use, as that of removing coins from a crack, or that of picking a lock, was the sole and only correct one.

Use name. A name applied to an object in conformity with some known or assumed use of the object. There are three general types of names applied to archeological materials: (1) a descriptive name; (2) a use name; (3) an applied name. Thus, a stone hatchet head may be called (1) a petaloid artifact of polished stone having one cutting edge at the wider, thinner end; (2) a chopping blade; (3) a celt. As a rule descriptive terms are longest, use names shorter and applied names shortest. Use names, however, ought not to be employed when the use is not evident. A wrongly applied name becomes a source of constant confusion. To call a hatchet head a "skinning stone" is to employ a use name that may be utterly erroneous and confusing. Though the term *celt* may be less intelligible it is preferable to "skinning stone" because it conveys no erroneous impression as to the use of the article, but on the other hand may suggest a cutting blade of some kind.

Use names, such as ceremonial stone, surgical stone, and the like should be avoided, unless the person employing the terms can justify them by an appeal to facts.

Wampum. The various sorts of shell beads used by the eastern Indians were generally termed wampum. Properly speaking, however, wampum beads are the small cylindrical beads made from both the shell of the Venus mercenaria, or common round clam, and from Pyrula carica and P. Canaliculata (formerly

called Busycon). From the purple spot in the clam shell flat pieces were broken and ground into long octagons. Drilling was then commenced and afterward the tube ground into a cylinder which was cut into segments that were finished as beads. Great care and skill was exercised to make purple wampum and its value was from two to ten times that of white wampum. The columellae of the Pyrula furnished a natural tube for beads. It was perforated and ground down, then cut into beads, and finally the beads were made uniform and given a polish. Frequently individual beads were drilled from the small cylinders cut from the shell. White beads being easier to make were valued at only one half that of the purple. In aboriginal times before the coming of Europeans wampum was much scarcer than after the dawn of the colonial period. As the middle period approached (1687), wampum manufacture by both whites and Indians had reached its maximum. There were bushels of it in use both for the manufacture of ceremonial belts and for coin. Wampum in strings was used as currency both by the whites and the Indians, and as late as 1712 was receivable for goods and for ferry fare between Manhattan island and Brooklyn.

With the aid of simple machinery from five to nearly a dozen strings of wampum, each a span in length, could be produced by a workman in one day. Each white span had a value of about 12½ cents. Discoidal wampum consisted of several sizes of discoid beads, each size conforming to a certain standard, and drilled in the center. Many small discoid beads, some quite perfect circles, have been found in graves that appear in every way to be prehistoric. Discoidal wampum varied from sizes having a diameter of one-fourth to three-fourths of an inch. Cylindrical wampum varies from less than one-eighth to more than three-sixteenths of an inch in diameter.

The name wampum comes from the New England Algonkin *wampumpeak*. Both parts of this word were used, wampum and peag or peak. The entire original word means "a string of (white) shell beads." Other terms were used, as, for example, "sewant." Some traders imitated shell wampum by making or obtaining counterfeits of porcelain. Bad wampum caused considerable trouble in the New Amsterdam money markets and rigid laws were passed governing the use, condition and value of the beads. Much has been written on the subject of wampum. Consult Beauchamp, Bulletin 41, New York State Museum; Bulletin 30, Bur. Am. Eth., Vol. 2, Hewitt, page 909; Woodward, Wampum: Weeden, Johns Hopkins

viii-ix, 1884; Holmes, 2d Rep't, Bur. Am. Eth-

cles made of wood were far more common among
n were articles of more durable substances. This is
the stone, bone and clay articles found on sites con-
mall fraction of the material objects made and used
Houses were of wood and bark, dishes were of
e were spoons, clubs, baskets, bowls, mortars, cups,
rattles, masks, arrow and spear shafts,
game sticks, boxes, and numerous
other things of wood. Bark likewise
supplied a useful material for ropes,
string, nets, fabrics, dishes, barrels,
houses and numerous other purposes.
A traveler in an Indian village in
colonial New York might never have
noticed a stone implement. These
facts point out that the finding of
even a single stone object on a site
may indicate a degree of occupation of
greater intensity than at first thought.
Everything else save the stone imple-
ment has crumbled away.



of wooden
a grave in

In some graves and in the bot-
toms of swamps and lakes articles of
netimes been found. Colonial Seneca and Onondaga
here have been articles of brass to act as a preservative
e yielded spoons, bowls, small images, and parts of
ıll of wood. Figure 68 shows the top of a comb of
an Ontario county Seneca grave.

Places where aboriginal implements, such as flint
ade are called workshops. These may be located near
ı camp sites along trails or near sources of supply.
vorkshops are places covered with large numbers of
ırtly blocked out stones. In workshop sites or nearby
ıts in process of completion may be found. Caches
s have occasionally been unearthed in the vicinity of
industry.

see N. Y. State Museum Bulletin 237–38.)

Abbott, Charles C
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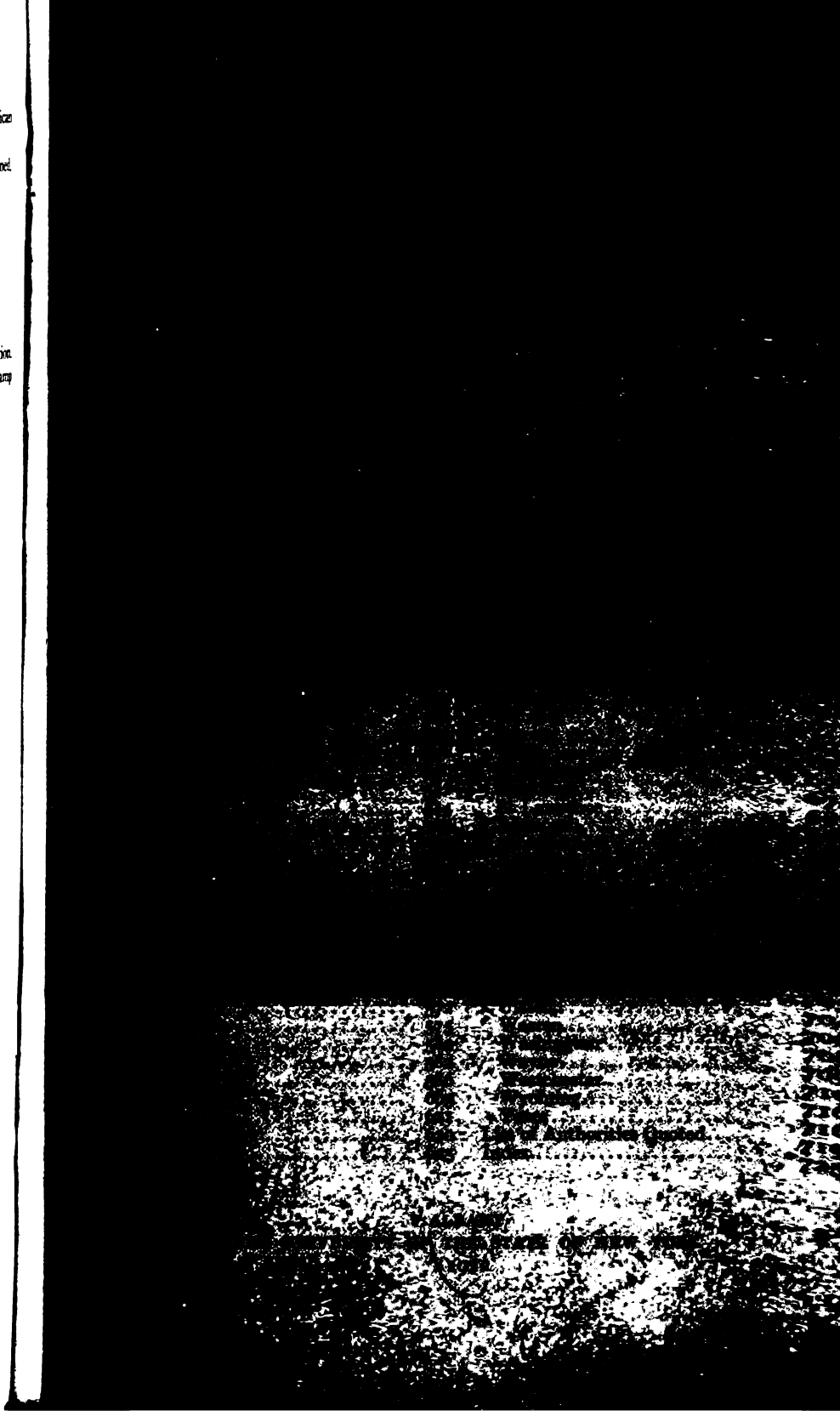
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John M. Clarke, Director

THE ARCHEOLOGICAL HISTORY OF NEW YORK

BY ARTHUR C. PARKER, ARCHEOLOGIST

PART 2

VI

ARCHEOLOGICAL LOCALITIES OF THE STATE OF NEW YORK

ILLUSTRATED BY MAPS, DIAGRAMS AND PHOTOGRAPHS

In presenting this atlas of aboriginal localities the compiler is fully aware of its limitations. To obtain information the records of numerous informants were sought. Some informants were accurate and sufficiently versed in archeology and geography to be able to give correct descriptions. Others were more or less unfamiliar with our requirements. At best this effort, though it supplements Doctor Beauchamp's "Aboriginal Occupation," must be regarded only as a preliminary attempt to record aboriginal localities in New York. It is expected that numerous errors will be found in the location of sites and in the descriptive text, but every effort has been made to have such errors as few as possible, considering our sources of information and the type of base map used. Of the great majority of citations we are positive, and in general the maps and descriptions may be considered reliable.

NOTE For part 1 see N. Y. State Museum Bulletin 235,236.

A partial list of those assisting in the gathering of information :ading to the location of the archeological localities here given ollows:

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Thomas Lee, Westport
E. D. Wiley, Ticonderoga*
Fred Amaton, Ticonderoga*
R. C. Lanelsa, Ticonderoga*
H. P. Pell, Ticonderoga*

Fulton County

James P. Rosa, Broadalbin
Donald McMartin, Johnstown
B. D. Smith, Johnstown
Percy Van Epps, Glenville

Genesee County

John R. Palmer, Oakfield
George K. Staples, Buffalo
Harry C. Follett, Rochester*
Frank Parker, Akron

* Names marked with an asterisk reported to have collections.

Greene County

in Q. Flint, Athens
bert R. Beardsley, Catskill*
D. Mulbury, Windham
George H. Chadwick, Catskill
Jefferson D. Ray, Coxsackie

Hamilton County

mes J. Dadd, Long Lake
Herbert Lloyd, New York*

Herkimer County

illiam F. Lansing, Little Falls
R. Mitchell, Herkimer
rs C. W. Caruin, Jordanville
H. Burrell, jr., Little Falls
. W. Crandall, West Winfield
Daniel I. DeVoe, Fort Plain*
Mrs Willard Keller, Little Falls
Addison Eysaman, Mohawk*
Mary E. Teckey, West Winfield*
M. M. Hatch, South Columbia*

Jefferson County

alter B. Camp, Sacketts Harbor
nry H. Northrop, Three Mile Bay
illiam R. Montaney, Watertown*
-ed Howland, Black River
M. Woodward, Black River*
illiam E. Leonard, Dexter*
C. Colligan, Watertown
oratio Walts, Dexter*
A. Collins, Cape Vincent
illiam J. Ross, Clayton
harles E. Rees, Clayton
Fred Cuppermill, Clayton*
Henry Woodruff, East Watertown*
Doctor Getman, Chaumont*
George B. Howe, Black River*
A. E. Kectch, Clayton*
George Baxter, Dexter*
H. Waltz, Dexter*
John Nichols, Three Mile Bay*
Dr R. W. Amadon, Chaumont*
M. R. Harrington, New York

Lewis County

. J. Mulligan, Lowville
LeRoy Crawford, Lowville

Livingston County

arry G. Bender, Dansville*
H. Crofoot, Sonyea*
. O. Bennett, Dansville
illiam Hamilton, Caledonia
E. Hitchcock, Conesus
harles D. Weller, Greigsville
. H. Moses, Lima
Monroe D. Baker, Mount Morris
W. A. Brodie, Geneseo
H. C. Follett, Rochester*
A. G. Baxter, Rochester*
A. H. Dewey, Rochester*
John W. White, Mount Morris*

Madison County

. R. Bradley, Cazenovia
. A. McAllister, Erieville
wane W. Cole, Oneida
C. G. Olcott, Oneida
Eugene Davis, Canastota

Monroe County

ourtland Avery, Rochester*
. S. Baxter, Rochester*
eorge W. Kellogg, Rochester
lvin H. Dewey, Rochester*
. W. Walker, Rochester*
G. O. D'Olier, Rochester*
Prof. S. P. Moulthrop, Rochester*
Shelley G. Crump, Pittsford*
George R. Mills, Rochester*
Edward D. Putnam, Rochester*
Walter H. Cassebeer, Rochester*
H. C. Follett, Rochester

* Names marked with an asterisk reported to have collections.

Montgomery County

D. S. Bussing, Amsterdam
Anna L. Greene, Fort Plain*
Robert M. Hartley, Amsterdam*
Percy Van Epps, Glenville

Nassau County

F. De L. King, Cedarhurst
George J. Price, Glen Cove*
Dr Joseph H. Bogart, Roslyn
Irving Cox, New York*
Walter Hicks, Roslyn*

New York County

R. P. Bolton, New York
H. Wheelan, New York
W. L. Calver, Bronx
Alanson Skinner, New York

Niagara County

Arthur D. Pease, Wilson
C. H. Tugwell, Wilson
J. L. Davidson, Lockport*
A. R. Beck, Lockport
Maud L. Butterfield, Newfane
John Mackay, Niagara Falls
Albert Hobbie, Tonawanda
C. N. Markle, Wilson
William Dailey, Olcott Beach*
Mrs George Lombard, Olcott*
Mrs D. Stout, Olcott Beach*
Hon. Peter A. Porter, Niagara Falls*

Oneida County

John O. Evans, Verona
William M. Smith, Knoxboro
Seth W. Pride, Holland Patent*
Mrs M. L. Sanford, Utica
J. Graham Bronson, Vernon Center
J. E. Tafft, Verona*
M. J. Pechtel, Knoxboro
John O. Evans, Verona
C. W. Klock, Oneida Castle
Horace B. Case, Rome*
Evan T. Evan, Sauquoit
James Sturling, Oneida Valley*
David Hoffman, Knoxboro*
James Dungey, Oriskany Falls*
George. Wells, Augusta*

Onondaga County

George H. Slocum, East Onondaga
Mary E. Lecky, West Winfield
Fred H. Downey, Elbridge
Harry L. Preston, Jordan
F. H. Broadfield, Manlius
C. R. Wilford, Skaneateles
C. O. Richards, Solvay
Luke Fitch, Manlius*
Otis M. Bigelow, Baldwinsville*
W. M. Beauchamp, Syracuse*
Harry S. Reichard, Syracuse*

Ontario County

Mrs C. Olmstead, Livonia
Fred H. Hamlin, East Bloomfield*
Mrs Kate Wheeler, Holcomb
P. Pitts Barnard, Livonia
F. B. Allen, Honeoye
Eleanor B. Densmore, Geneva
Albert Van Buren, Honeoye*
Charles Mason, Livonia*
Alvah Reed, Livonia*
Charles Olmstead, Livonia*
A. H. Dewey, Rochester*
H. C. Follett, Rochester*
D. D. Luther, Naples*
C. F. Milliken, Cannadaigua

Orange County

Thomas Taft, Cornwall-on-the Hudson
Capt. Theodore Faurot, Highland Falls
W. F. Crans, Circleville
J. P. Lloyd, Highland Falls*

* Names marked with an asterisk reported to have collections.

Orleans County

H. Beach, Albion — F. H. Lattin, Albion
alter A. Tuttle, Buffalo

Oswego County

arles B. Cauruthers, Altmar — M. D. Bumpus, Pulaski
illiam K. Bentley, Pulaski* — Thomas Soule, Altmar*
r Joseph Cogswell, Orwell — James Hydorn, Altmar*

Otsego County

sie L. Thomas, Mount Upton — E. E. Carpenter, Morris
enry U. Swinnerton, Cherry Valley — D. R. Dorn, Cooperstown*
illiam L. McEvan, Cooperstown — John R. Skinner, Oneonta
B. Eason, Schuyler Lake — J. L. Duesler, Springfield Center
. B. Henry, Mount Upton — Claude M. Balson, Schenevus*
. E. Baldwin, Schenevus — Willard Yager, Oneonta*
llen Chapin, Morris — Adrian A. Pierson, Cooperstown*

Putnam County

mes Nelson, Cold Spring — Murray H. Gardiner, Brewster

Rensselaer County

. W. Borden, Schaghticoke — O. C. Auringer, Forestport*
ux D. Bauker, Schaghticoke — Arthur C. Cheney, Castleton
lbert C. Hurd, Albany* — Frank S. Hutchinson, Castleton*

Richmond County

lanson Skinner, Brooklyn — George H. Pepper, New York

Rockland County

. H. Fenton, Nyack — J. V. Clarke, Sparkill*
swald N. Bauer, Sparkill* — Carlton De Groot, Nyack*
. H. Hanking, Congers — Renwick Blauvelt, Nyack*
Valter Tomkins, Tompkins Cove — Alzamore Clark, Peekskill
tledge I. Odell, Stony Point — Brewster J. Allison, Stony Point
. J. Gasell, Piermont* — Sylvestus Bulsen, Stony Point
. M. Blauvelt, Sparkill*

St. Lawrence County

. E. Hellegas, De Kalb Junction — James W. Atchinson, Madrid
ames C. Dolan, Gouverneur — Howe G. Atwater, Norfolk

Saratoga County

. A. Haskins, Mechanicville — Thomas Lee, Westport

Schenectady County

ames H. Stoller, Schenectady — Langdon Gibson, Schenectady

* Names marked with an asterisk reported to have collections.

Schoharie County

Paul Brown Mattice, Middleburg*
J. Schuyler Vroman, Middleburg
Chester Whittaker, Middleburg*
F. W. Larkin, Sharon Springs
E. R. Armstrong, Sharon Springs
A. E. Richard, Middleburg*
Mott. O. Lawyer, Fultonham*
Elmer Borst, Middleburg*

Schuyler County

Mrs L. L. Clawson, Montour Falls
O. P. Hurd, Watkins
M. M. Cass, Watkins
I. N. Clawson, Watkins*
John Yeetsel, Montour Falls*
Robert Everts, Montour Falls*
C. W. Birgs, Hector*

Seneca County

M. R. Lawrence, Lodi
G. G. Dunlap, Ovid
Benjamin Franklin, Ovid
Margaret Frantz, Ovid
Henry E. Hubbard, Waterloo
Oliver Bennett, Lodi*
H. Budd Conert, Lodi*
E. K. Dunlap, Ovid*
John Coryell, Romulus*
Charles S. Hall, Waterloo*

Steuben County

W. W. Smith, Avoca
F. D. Young, Greenwood
W. G. Kellogg, Greenwood
Edgar M. Wixson, Elmira
Roscoe C. Fox, Avoca*
Fred Plaisted, Bradford*
Joshua Rapplee, Weston*
George DeNut, Weston*
Edwin Hilborn, Albany*

Suffolk County

Selah B. Strong, Setauket
B. G. Galloway, Southold
S. L. King, East Hampton*
Mrs Walter Scott, East Hampton*
A. J. Brown, East Hampton
N. S. Acherly, Northport
Eugene R. Smith, Islip
Henry M. Hollock, Jamesport
W. E. Gordon, Patchogue
J. Wickham Tuthill, Shelter Island
Byson Griffing, Shelter Island Heights*
Walter L. Jagger, Southampton
William D. Halsey, Bridgehampton
James Pierson, Southhampton
G. Clarence Topping, Sagapoerach
J. N. Halock, Southold
J. Allen Burnett, Water Mill
Alfred J. Brown, East Hampton*
M. R. Harrington, Mount Vernon
George A. Miller, Springs*
C. M. Talmage, East Hampton*
Richard H. Handley, Hauppauge*
Simeon Wood, Islip*
Moses B. Griffing
W. W. Tooker, Sag Harbor*

Sullivan County

C. A. Shorwelle, Callicoon
A. M. Scriber, Monticello
Albert Ehrle, Lake Huntington*

Tioga County

Gilbert T. Truman, Owego*
Percy L. Lang, Waverly*
Harry F. Nowlan, Newark Valley*
F. C. Ingersall, Nichols*
Dr J. T. Tucker, Waverly*
Dr George Cady, Nichols*
Lyman Shoemaker, Nichols*
Charles Dunham*

* Names marked with an asterisk reported to have collections.

Tioga County — (Continued)

Osborne, Nichols
n Crispell, Nichols
Kisby, Nichols
ruman, Owego*
Goodrich, Montello, Wis.
iin Loring, Owego*
E. T. Romine, Owego*
Thomas Reddish, Owego*
Edward Bauer, Owego*
Dan Beaman, Owego*
Frank Barrett, Owego*

Tompkins County

n J. Nolan, Freeville
; O. Rodes, Groton
William Weatherwell, Newfield
A. C. Van Horn, Groton*

Ulster County

Goodsell, Kingston
d Chipp, Kingston
Clearwater, Kingston
Brink, Kingston
Baildon, Marlborough
. M. Woolsey, Milton*
Peter Marciuscourki, Wallkill*
Rev. Denis Wortman, East Orange, N. J.*
T. Millsparsgh, Wallkill
Thos. E. Benedict, Napanock
Max Schrabisch, Patterson, N. J.

Warren County

n Williams, Glens Falls
uringer, Forestport
Galloway C. Morris, Lake George
Christopher Keller, Luzerne

Washington County

Hoag, Greenwich
'ember, Granville
A. VanDenBergh, Eagle e*
s F. Advance, Fort Edward
Hiram J. Sturns, Granville
T. J. Brown, jr., Granville*
Edward Moon, Fort Edward*
William T. Cook, Whitehall

Wayne County

Lampman, South Butler*
Taylor, Savannah*
C. Soule, Savannah*
H. Clark, Sodus
M. Kelly, Sodus
Dr Daniel Richards, Marion
Alice M. Curtis, Marion
Theron Knapp, Savannah*
William Farrand, Savannah*

Westchester County

Secord, New Rochelle
nton S. Arnold, Scarboro-on-on
Harrington, New York
Rev. W. R. Blackie, Woodlawn*
Mrs B. J. Carpenter, jr., White Plains

Wyoming County

mith, Alden
Holdridge, Cowlesville
Loren S. Duggan, Gainesville

s marked with an asterisk reported to have collections.



Village site. In all cases numerals refer to the text.

Camp site or other indications covering small area.

Earth work or earthen ring.

Incomplete ring or crescent.

Burial site or grave.

Ossuary of series in which several skeletons are buried.

Mound or location of mound now destroyed.

Rock shelter or cave.

Petroglyph.

Traces of occupation.

Indian spring.

Shell heaps or kitchen middens.

Stone heap or cairn.

Caches or pits.

Fig. 69 Key to Characters on County Maps

ARCHEOLOGICAL LOCALITIES IN NEW YORK

Albany County

General occupation. Albany county does not seem to have been a place of many settled villages nor a locality in which the aborigines were content to abide as a home land. It seems to have been a land of passage for there were trails up and down the Hudson, both along the river bank and over the regions on the upper terrace, so that camp sites are found all along the terrace from Cohoes southward to South Bethlehem.

There were many camp sites along the Normanskill southwest of Albany and southwest of the Normanskill in the valley between it and the Helderbergs.

There are legends to which special credence is given by Schoolcraft stating that the Mohawk at one time had a burial place near the mouth of the Normanskill, on the south side, somewhere near Kenwood on the Delaware & Hudson Railroad, but it does not appear by fact that the Mohawk ever had a settlement near this point.

A trail once ran from Albany along what is now Western avenue, and westward to Schenectady. Scattered relics are found in camp sites at Dunnsville, Fullers Station, Guilderland, McKownville and on the sand flats of West Albany. Remains have also been reported in the present Washington Park, in the city of Albany, while the Dutch found considerable cleared ground along the river near the present Steamboat square, prepared as agricultural ground. Hunting camps follow in a line from Schenectady county through Altamont, Meadowdale, Voorheesville, Clarksville and South Bethlehem, along the edge of the Helderberg mountains, while a trail passed over the escarpment at Indian ladder.

Within historic times the county was in possession of the Mahikan Indians, while remnants of the Schaghticokes within historic times had very small settlements about it. One of these Indian settlements was at Oniskethau.

The principal implements of aborginal origin in Albany county are those which have been used for hunting and food preparation; thus, all along the sand flats west and northwest of Albany are found large spears and knives, pestles and mullers. Soapstone potsherds have been found also in various places, and fragments of both Iroquoian and Algonkian pottery.

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seems to have been a land of
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from Cohoes southward to

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nskill in the valley between it

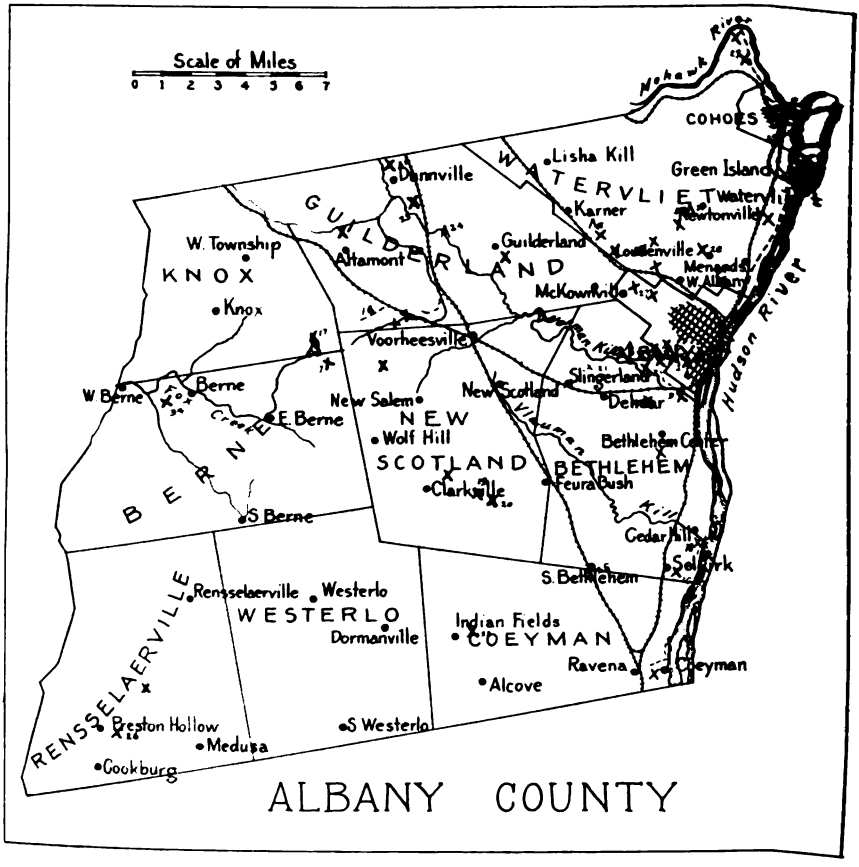
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Plate 143



Location of Sites[1]

1 Camp sites near the county almshouse and along a gully that runs parallel with Delaware avenue and northwest of it. This is in the city of Albany and along its southwest boundary.

2 Village site in Albany and north of Ten Eyck park on the Whitehall road a little northwest of Delaware avenue and south of the Albany Orphan Asylum. The country in general is sandy and many relics have been found in this locality. Reported by Mr C. E. Stein.

3 Village site on the southwest side of a creek and northwest of the Whitehall road.

4 Series of camp sites between the site just mentioned and Summit Park.

5 Camp sites on the southwest side of Whitehall road and between Dolch's road and the Normanskill, on the highlands above the slope. Most of the relics and evidences of occupation have come from the vicinity of Dolch's road.

6 Small village site in the meadows on the northwest bank of the Normanskill from 1½ to 2 miles northwest of Normansville. This site is at the ford and a little west of the shale ravine (fig. 70).

7 Camp site on the Dolch's property between the site just mentioned and Black Rock, on the north side of the creek. Another camp site is directly opposite.

8 Village site with scattered relics on the high ground between Second and Delaware avenues and the Normanskill valley. Relics are found all over this area, part of which lies in the city of Albany.

9 Small village site 1 mile southwest of Normanskill at the top of a hill and south of the Delaware & Hudson Railroad tracks. This site is along a road that runs south from Normansville, near the bridge, at the old Rockefeller crossing.

10 Camp site near the West Shore Railroad tracks at Selkirk.

11 Village site near Karners on the sand plains. The State Museum has a large number of arrowheads and polished stone implements from this locality.

12 At Watervliet, near the railroad bridge, is a camp site yielding rude fishing and hunting implements. The culture is Algonkian.

13 A large camp site is near the arsenal at Watervliet, one-fourth of a mile from the river. Thick spears, arrowheads, scrapers, net sinkers, and a few polished slate stones have been found. The culture is Algonkian.

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[1] Numbers refer to map.

14. There was "much cleared land" at Albany. Father Jogues wrote in 1644 that the Dutch "found some pieces of ground all ready, which the savages had probably prepared." This was near the river where Steamboat square is now located. With this exception there seems to have been little occupation of the lowlands near the river between the Normans kill and Watervliet. The hilly land west of the city, however, shows abundant traces of occupation. On the sand plains and in the pine forests west of the city are numerous camp sites. Most are of Algonkian origin though in a few Iroquoian potsherds are found.



Fig. 70 An early site on the Normanskill slope south of Graceland cemetery, Albany. Site 6.

15 There was an early village site in Cohoes and relics are found there. According to the Iroquois traditions the village in which Dekanawida and Hiawatha arranged the rules of the Five Nations Confederacy was situated near the lower falls, above Cohoes, and on the left bank of the Mohawk river.

16 A trail led across the Helderbergs to the Schoharie valley. The Indian Ladder was on the site of the present Indian Ladder road, 1 mile from Meadowdale station. In a niche where the rocks

were 20 feet high a tree was felled against them, the lopped branches forming a ladder. It was in use in 1820 (Harper's, October 1869). The Indian Ladder road goes over the original site of "the ladder" but residents of Indian Ladder have for many years kept a ladder against the cliffs. A trail known as "the bear path" leads around the cliff just above the till. It is on a hard, projecting stratum of limestone. There are evidences of Indian occupation and broken bands of Mahikans camped there in comparatively recent times.

17 P. M. Van Epps notes some relics about the lakes in Knox and Berne. There was a small camp on Thompsons lake. There is said to have been a cave nearby at the entrance of which Indian relics and a large carved tablet were found.

18 Camp site on Farm of G. M. Tucker, jr. of Glenmont. Large flints, gorgets and hammerstones were found on Rock Hill farm.

19 There were many relics in New Scotland, with camps at Clarksville and on the Hotaling farms (Howell, p. 908). Arrow points and hammerstones are still to be found in this locality.

20 Howell mentions camps along the Oniskethau creek.

21 Camp sites are found on the Slingerland flats, according to Howell.

22 Camp sites on sand plains east of Delmar and south of the Delaware & Hudson railroad tracks.

23 Camp sites near French Mills, near the falls.

24 Large village site on Vosburg property, Guilderland (plate 144).

25 Mr Brayton says that in digging the turnpike road, in ascending Kinderhook hill, on the road to Bethlehem many human bones, supposed to be Indian were found at a spot where the soil is light and sandy. On the hill above his house is a level field, where arrowheads have been found in large numbers (Schoolcraft, Report, p. 226). Relics are still found in this vicinity.

26 In Coon's meadow on Catskill creek and on the outskirts of Preston Hollow the Stockbridges had recent camps. This is in Rensselaerville, where there were trails in 1711. The Stockbridge Indians hunted near this spot as late as 1838.

27 Camp sites at McKownville.

28 Camp sites near Loudonville.

29 Camp sites in the bend of the Mohawk northwest of Cohoes.

30 Village sites on the Normans kill in the northeast corner of New Scotland.

31 Camp sites at Dunnsville reported by Mr Brinkman.

32 Camp site in Indian Fields.

33 Village site west of Newtonville.







Views of an early pre-contact site on the Vosburg farm, near Guilderland nter, Albany county. The stream is the Normanskill. Site 24, Albany nty.

34 Camp on the south side of the mouth of Fox creek, west of Berne.

35 Camps near South Bethlehem.

36 Camps near Bethelehem Center and along the Hudson, to the east.

37 Camps on the hills west of Menands.

38 Camps east of the New York Central Railroad tracks between West Albany and Karner.

Notes on Albany County Sites by Theodore Cassavant

The largest and most productive of Indian village sites around Albany was discovered a number of years ago on the north bank of the Normans kill southwest of Guilderland and about one-half of a mile from French's Mills. This site is on the Vosburg farm and lies on a high, flat hill, which slopes down to the creek some distance below. Many valuable pieces have been found here. A number of pestles (the longest being 19 inches), gouges, chisels, celts, pieces of banner stones, steatite pottery, and semilunar choppers, planing and sinew stones, as well as the more common finds of hammer-stones, knives, drills, arrow and spear points. Its productiveness seems now to be on the wane; however, other sites almost contingent to this have proved valuable finds. (See plate 144.)

Directly opposite the Vosburg site and extending along the south side of the creek to the falls at French's Mills many knives, scrapers, arrow and spear points have been found. Along the flats near the Mills several cup stones and pestles were picked up.

Camp sites seem to be abundant in this vicinity. Near Fuller's Station and Dunnsville sites of considerable size are reported. Almost every farmer can produce a cigar box full of arrow and spear points, which have been picked up from time to time in plowing. Great opportunity is offered to the intelligent collector, who looks for other things than arrow and spear points, in this region.

Along the north side of the state road leading from Albany to Guilderland and on, there extends a long chain of sand hills from which hundreds of perfect and finely worked arrow and spear heads of many styles and materials have come.

The next largest site known in this region lies to the southeast of Guilderland not far from the Normanskill on the Carpenter farm. This site is best reached by following the road leading south from the state road at the White Swan Tavern, till a large house is reached on the right side of the road as it branches and turns to the right. The site is on the south side of this house in the direction of the

creek. It is surrounded on three sides by an old creek bed, which is partially dried up.

Approaching nearer to Albany and leaving the Normanskill valley, we come upon still another site of some importance, as regards the finds of Indian relics. From the state road we journey south in front of the church at McKownville, on a dirt road for about a mile, until we reach a pine woods on the left of the road, then we cut directly through them to the clearing on the south side. We now find ourselves upon a hill looking down upon an open field through which a ridge runs. Along this ridge and to the far side a beautiful gouge and many knives, arrow and spear points have been taken; also the dorsal side of a turtle's shell which was probably used as a scoop was found along the level above the small creek.

Allegany County

List of Sites

1 Caneadea, a Seneca village on the Genesee, was at the mouth of Caneadea creek. The council house was removed in 1876 to Letchworth Park.

2 Cemetery at mouth of Black creek reported in the Smithsonian report for 1879 by E. A. Byrnes.

3 Cemetery on lot 53, Belfast, reported by E. M. Wilson of Belfast who wrote in 1896, "Between 15 and 20 years ago Mr. Byrnes and I visited an old Indian cemetery which had been opened at that time near the village of Houghton in Caneadea. With the exception of one stone pipe nearly everything found in the shape of implements was made by white men." This proves the occupation to have been quite recent.

4 Graves are found on the Leet farm in Houghton. John S. Minard of Cuba has made some examination of this site.

5 Village site 2½ miles northeast of Fillmore, reported by G. L. Tucker.

6 There is a burial ground about 1 mile east of Fillmore. It is reported by Mary C. Crowley.

7 Village site 3 miles south of Fillmore. Graves are found nearby.

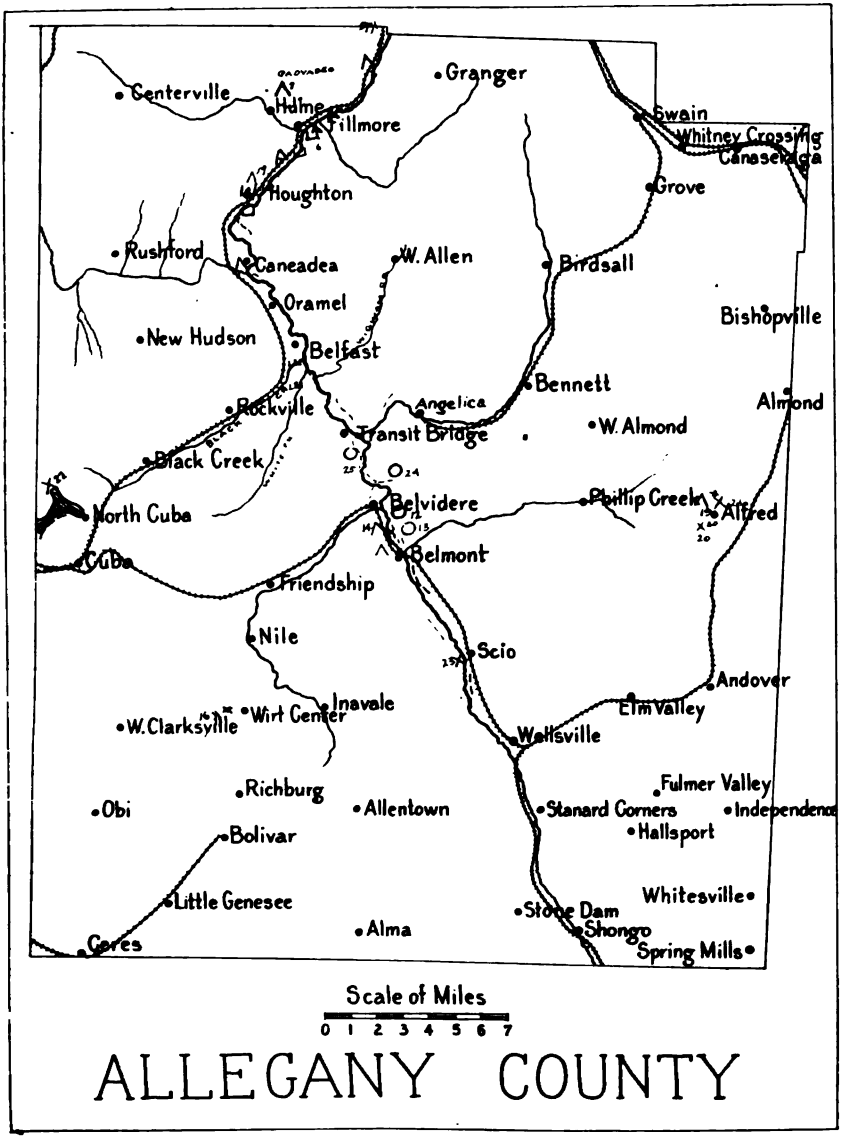
8 The site of Ga-o-ya-de-o is on lot 39 in the town of Hume. It was a late colonial Seneca town.

9 Near the former site is a burial ground.

10 The site O-wa-is-ta, a colonial Seneca village, is near Roxbury station.

11 A fort site is reported by G. L. Tucker, 1½ miles below Belvidere village.

Plate 145



ALLEGANY COUNTY



1

Two views of a remark
at Belvedere, Allegany cou
Museum of Archeology and

Plate 146



Two views of a remarkable olive steatite pipe found by George L. Tucker, at Belvedere, Allegany county. In the Tucker collection, Buffalo Consistory Museum of Archeology and History. x7/8.

12 Fort site near Belvidere in Amity township.

13 Village, fort site and fort south of the former, reported by G. L. Tucker, who has five interesting Iroquoian pipes from this place. Plate 146 is an interesting stone pipe from this locality.

14 Village site and fort at the bend of the Van Campen's creek on the south side, just southwest of Belvidere. Mr Tucker found a steatite pipe here, the bowl of which was the extended mouth of an effigy of a human face. (See plate 146.)

15 Village site west of the river at Belmont reported by Mr Tucker.

16 Mr Wilson reported a "work of a different class, known to the settlers of the town of Wirt, in the southwest part of the country."

17 Owaiski was south of Portage, near the junction of Owaiski creek and Genesee river.

18 Just below Portageville station on the Pennsylvania Railroad is a mound. It was opened several years ago by local antiquarians who found among other articles a considerable number of pearl beads in the usual perforated mound fashion.

19 A village site or "battle ground" is reported by Philip Green as being near Alfred.

20 Shongo's Town was on the farm of Harvey Quaker near Houghton.

21 There is a recent village site on the property of Mary L. Green near Alfred.

22 Camp site on the bend of the lake northwest of North Cuba.

23 Camp site west of the river at Scio.

24 Fort reported north of Belvidere above the bend of the Genesee.

25 Fort reported by Mr Tucker on lot 19 (Angelica) on the west side of the river between Belvidere and Transit Bridge.

Bronx County

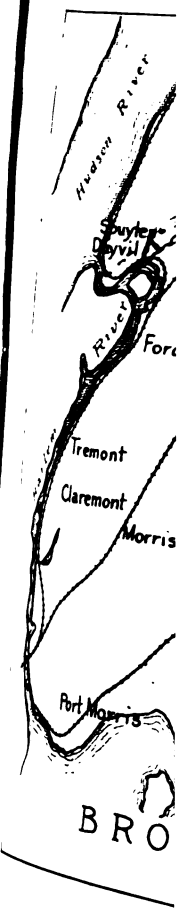
List of Sites

1 Village site in Van Cortland Park on the west side of the lake (plate 148).

2 Village site and shell heap at Pelham Bay Park. The shell heaps are scattered all along the shore here and several have been excavated on the electric line between Bartow and City island by M. R. Harrington. This is near two large glacial boulders.

3 Extensive shell heaps at Weir Creek Point near Throggs Neck. Mr Harrington believes it to have been one of the oldest along the sound, judging from the character of the relics disclosed.

4 Shell heaps at City island, reported by M. R. Harrington.



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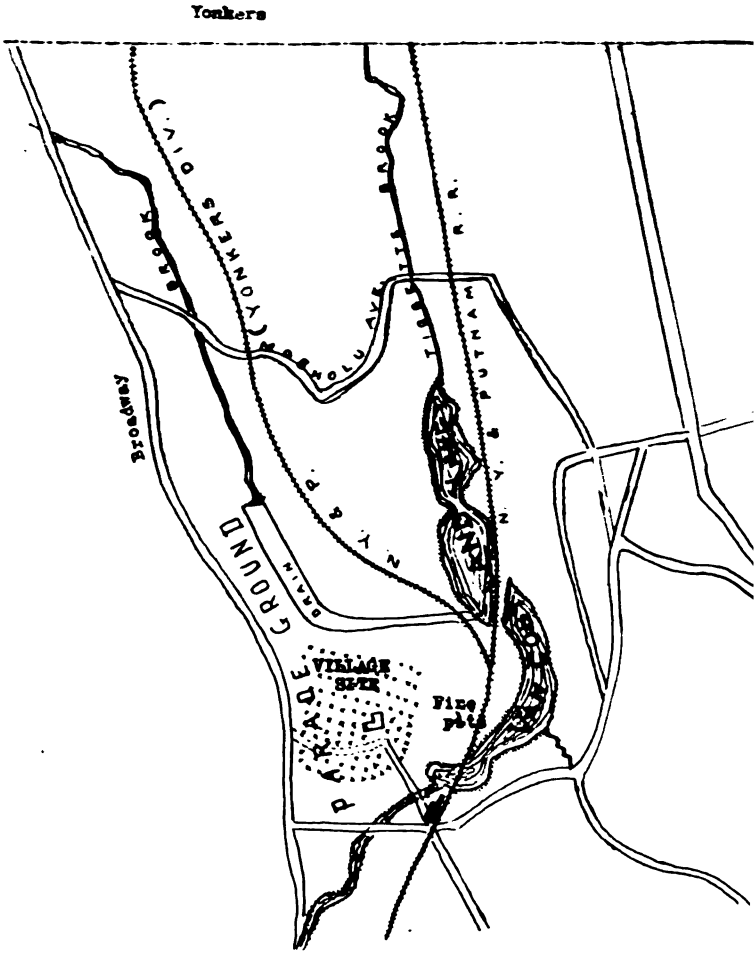
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Plate 147



The Van

Plate 148



The Van Cortland lake site (after W. R. Blackie)

5 Shell heaps at Hunter Island.

6 Burial place three-fourths of a mile south of Bartow's station on two small knolls. There is a shell heap 40 feet in diameter just behind the larger knoll.

7 Camp site on the Hutchinson river 1 mile south of Pelhamville station. Many stone relics have been found here.

8 Shell heaps on the west side of East Chester bay near the mouth of a small brook. This is just south of Baychester Station. Most of the sites along this shore have been explored by M. R. Harrington, who has described them to the writer and also furnished notes to the American Museum of Natural History and to Doctor Beauchamp.

9 Shell heaps in West Farms.

10 Village site in East Chester on a high hill overlooking a stream. This was supposed to be the castle of Simanon.

11 Village and burial site northeast of the old East Church on East Chester creek.

12 Extensive shell heaps on City island reported by M. R. Harrington.

13 Shell heaps in Pelham at the entrance of Pelham Neck.

14 Shell heaps along the Hutchinson river and along Pelham bay, about one-fourth of a mile above the railroad bridge. There are numerous relics in this vicinity with evidences of village sites and burials.

15 Camp site east of the Bronx at Woodlawn.

16 Village site at the mouth of Tibbit brook.

17 Village site east of Sedgewick avenue along the reservoir, at Kingsbridge.

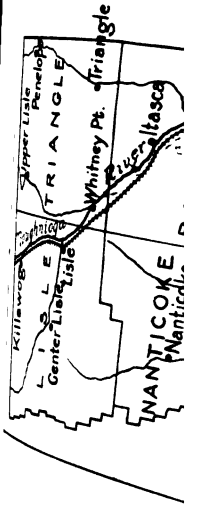
18 Shell heap on Classon point, examined by Mr Skinner.

Broome County

List of Sites

1 Recent village on the west side of the river at Chenango Forks, and north of the bridge. The cemetery was on the east bank (Smith, Chenango, p. 193). Pottery, stone hoes, soapstone potsherds and chipped flint are found at Chenango Forks. The general region seems to have been occupied for an extended period. The numerous articles used for agricultural purposes along the river flats indicate permanent settlements. There are graves to the rear of the old hotel grounds.

2 Village site south of the Susquehanna and east of the most western creek in Vestal. In an area of 2 acres are found flakes, arrowheads, hammers and pottery.



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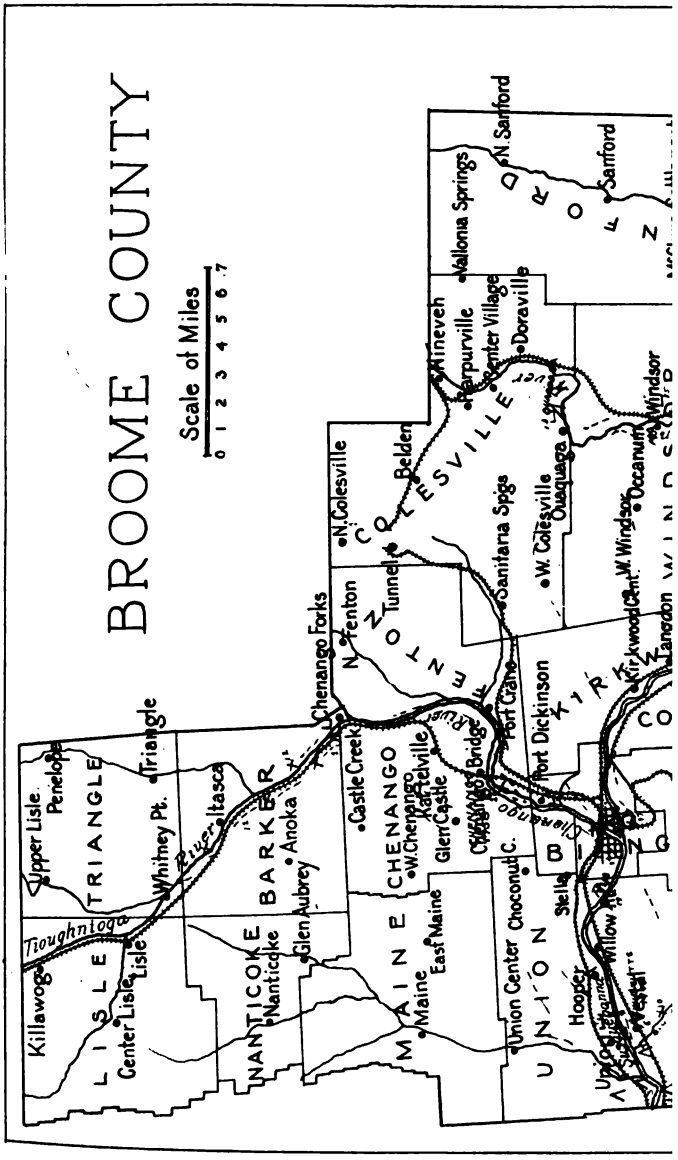
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3 On the north side of the river and northeast of the above named is a similar but very much larger site with fireplaces, celts and hammers. These are found over 15 acres of land. It is west of a creek flowing west of Union.

4 A similar site on the south side of the river, and west of Big Choconut creek at Vestal.

5 Round Top hill is west of Union and east of the creek before mentioned. The site is at the base of the hill and north of the river, extending over many acres. Very large celts and other common relics have been found.

6 Chugnutts was a large, recent town on the south side of the Susquehanna, at the village of Vestal, and was burned in 1779 (Sullivan, p. 24). Some Oneidas, Tuscaroras, Skaniadarighroonas, Chugnutts and Shawnees settled at Chugnutts in 1756 (Doc. Hist. N. Y., 7:50).

7 A bluff on the north bank of the river east of Union contains a cemetery.

8, 9 South of the last site and of the river are many shell heaps in the bank. Most of the shells are those of the fresh-water clam. Pottery and flints are found in the refuse.

10 An island of about 10 acres in Big Choconut creek, southeast of Vestal, has earthenware and a few arrowheads.

11 Chenango, or Otsiningo, was 4 miles north of Binghamton, in the town of Chenango and on that river (Sullivan, p. 24). In 1758 there lived three nations at Otsiningo, the Shawnees, Nanticokes and Mohickanders (Doc. Hist. N. Y., 7:250). Castle creek, on the west side of Chenango river, was so called from the Indian castle at its mouth (French, p. 181). Many silver ornaments were found near Binghamton (Wilkinson, p. 143). An Indian oven was washed out there, on the Susquehanna (Wilkinson, p. 220). These quotations indicate the extensive evidence of Indian occupation in the vicinity of Binghamton. The culture is mostly Algonkian. The largest pottery vessel found in New York is from this locality and was found by William Hakes.

12 Camp sites along the Tioughnioga river between Chenango Forks and Whitney's Point.

13 Ouaquaga was on both sides of the Susquehanna, 8 miles below Conihunto, and near the present Ouaquaga. It was destroyed in 1779 (Sullivan, p. 23). A deposit of brass kettles was found at Ouaquaga (Wilkinson, p. 155–56). At Ouaquaga are old apple trees and earthworks (French, footnote, p. 180).

14 On the hilly slope at Ouaquaga human bones were plowed up. The remains of a recent fort was seen by the first settlers (Child

Directory, 1872–73). The occupation most in evidence is recent and the fields along the river are strewn with flints, broken pottery and fire-cracked stone. W. E. Yager of Oneonta has two large Algonkian vessels from this site.

15 Burial site east of the river from Windsor.

16 Village site with heavy deposits on the east side of the mouth of the Chenango, in Binghamton.

17 Camp site on the flats south of Binghamton and along the Susquehanna river.

18 Village site just south of Stella and on the bank of the Susquehanna river.

19 Village site south of the last on the south side of the river.

20 Camp sites along the creek a mile west of Deposit.

21 Village site on Ouaquaga flats at the bend of the Susquehanna 2 mile east of Ouaquaga village. This site has yielded numerous evidences of a considerable occupation. Mr John S. Johnston, who reported this site, found numerous broken implements and potsherds here.

22 Camp site at sulphur spring along a small stream near Gates creek, 2 miles northwest of Ouaquaga.

23 Stone pile, reported by Mr John S. Johnston, along the old Indian trail over the hill from Ouaquaga to Binghamton. Local traditions say that the Indians as they passed this spot cast stones upon it until a considerable cairn had been erected.

Cattaraugus County

General occupation. Cattaraugus county seems to have been occupied from remote times and there are numerous sites of camps, villages and burial sites throughout its limits. It is impossible to enumerate all the sites in this county. Many earlier sites which have been investigated are those which yield implements similar to those termed Eskimoan. Sites of this kind are found principally along sloping hillsides of creek valleys.

The next known occupation is one that yields large notched flints and soapstone fragments. Sites of this kind merge into others within which are found polished stone implements such as gorgets, celts and grooved axes. Occasionally rude pottery is found. In examining sites of this occupation, especially through the Cattaraugus valley and along Lake Erie and also through the inland valleys of Conewango and the Allegheny, it would appear that the earliest occupants to leave definite traces of village life were branches of the Algonkian family.

A third phase of culture and occupation is indicated by sites upon which are found mounds and which yield notched flint spears, arrow



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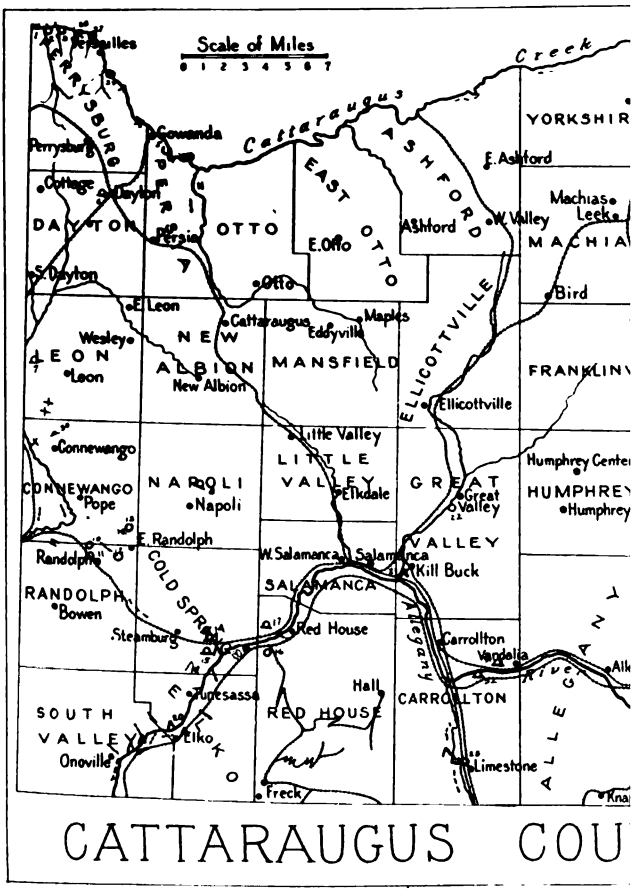
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heads, knives, celts and occasionally a grooved axe, copper implements, gorgets, banner stones, bird stones and gouges. Pipes are occasionally found of the platform-monitor type. Just who these people were who left these traces is impossible to state. It is evident however, that they were a sedentary people and had acquired considerable proficiency in the several aboriginal arts. Their pottery, however, seems to have lacked durability and only small fragments are found. It is possible that they built some of the earthworks within the county but the greater majority of the embankments and earth walls were not built by these people. Their immediate successors seem to have been an early branch of the Huron-Iroquois stock, which succeeded in driving out the earlier occupants. They built numerous earthworks and palisaded inclosures and within these recent excavations have revealed triangular flint points and an early form of Iroquois pottery. This pottery is interesting from the fact that the high overhanging collar does not seem to have developed although the characteristic, triangular patterns, made by parallel lines, are present.

This later people used pitted hammerstones as did their predecessors but did not use copper implements, gorgets or banner stones. They seem to have succeeded in holding this region up to historic times although they later developed certain other characteristics.

At the opening of the historic period the county was probably occupied by a division of the Erie or Cat nation which held most of the territory between Buffalo creek and Sandusky, Ohio. They had a number of villages and were responsible for some of the earthworks in this county.

In 1654 the Erie were destroyed by having their nationality extinguished in the conflict with the confederated Iroquois. Historical accounts seem to leave the impression that this region then became abandoned entirely and remained so for more than one hundred years. This does not seem reasonable on the face of things and indeed is not corroborated by the evidence of archeology, for it appears that very soon after the destruction of the Erie nation the Seneca had settlements in certain portions of the county.

The principal archeological centers in Cattaraugus county are: (1) the regions about the mouth of Cattaraugus creek and along its bank as far south as Gowanda; (2) in the valley of the Conewango, in the vicinity of Conewango village and within the township of Conewango ranging northward into Leon along a large tributary on the Conewango creek; (3) the township of Randolph; (4) the valley of the Allegheny from Limestone on the east to Onoville on the west. The Allegheny valley contains numerous remains of all the various occupations mentioned. For considerable time it

remained only the hunting ground of the Seneca Indians but the Allegany Reservation now covers almost the entire Allegheny valley from Vandalia on the east to the Pennsylvania line on the west; (5) the Allegheny valley from Vandalia running through Olean to Carroll on the east; (6) other minor localities are the valley of Cold Spring creek, running northward into the town of Napoli, the valley of Big Indian creek in the town of Perrysburg, and the hilly region in the town of Persia just west of the branch of the town of Cattaraugus.

Investigation along archeological lines in this county were early conducted by Schoolcraft, Cheney, Adams, Larkin and Macauley, who have all described various sites in the county. The principal scientific investigations in the county have been conducted by M. R. Harrington and the writer. Several collectors, among them W. T. Fenton of Conewango, have done good work in making surveys and recording sites.

Many of the aboriginal village sites and burial grounds found in the valley of the Cattaraugus and vicinity usually credited to the Erie exhibit characteristics that lead one to think that in reality they belong to the Seneca. The clay vessels and pipes are counterparts of those found in the valley of the Genesee, the original habitat of the Senecas. Farther west along the Lake Erie shore are sites that are unmistakably Erie. Here the pottery is vastly different in form and decoration. The Iroquois exterminated the Erie about 1654 and from that time until the war of the American revolution their territory was supposed to have been uninhabited. To have left so rich a hunting ground unvisited and without settlements is contrary to the known policies of the Iroquois and it is extremely probable that the Seneca, to whom the territory naturally fell, early had villages and defensive works there. Tradition has little to say of this occupation though there are a few faint glimmerings that might lead to the idea. Archeology, however, sheds a more definite light on the matter and from the material found in grave pits and refuse heaps in the Cattaraugus valley I am led to say that there is much evidence to support the statement that the locality was occupied by the Seneca soon after the Erie were driven from it.

List of Sites

1 A work on a high ridge on the south side of Cattaraugus creek, 5 miles from Lake Erie and one-fourth of a mile below Big Indian creek. The bluff is parallel with the first creek, pointing up stream. The sides are high and abrupt, except at one place on the north side; along this a wall was built for 15 or 18 rods, completely closing the

gap. At the northwest end the wall bends to the west. The ridge is very narrow here. This site has been recorded by various writers, but does not seem to have been long occupied. The ridge appears to be natural and the few flints found near it seem to have come from a pre-Iroquoian village site nearer Big Indian's mouth.

2 Burning Spring Indian fort. This earthwork is situated on the point of a ridge jutting out from the superior terrace on the southeast side of Cattaraugus creek near the mouth of Big Indian creek. The earth wall that forms the breastworks of the fort was locally supposed to be beyond the power of the Indians to erect and hence was credited, for no other apparent reason, to the French and the place has long been called the Old French fort. Burning spring is found at the foot of the hill upon which the fort is erected, and takes its name from the gas that bubbles from the rocks beneath the water at the base of Burning Spring falls, a stone's throw from the mouth of Big Indian creek. The fort proper embraces an area of about 1 acre. The site is admirably adapted by its surroundings for a fortified refuge, the swift Cattaraugus on the north preventing access from that direction and the high, almost perpendicular slate cliffs of Big Indian creek on the west forming an effective barrier there. The eastern hillside is less steep but is protected by a series of trenches sheltered by walls of earth dug into the hill at intervals from top to bottom. These outposts are found at all easily accessible parts of the bank. They were probably intended as vantage places from which the enemy could be fought and driven down the slope. That these walls and trenches are artificial is shown by the fact that potsherds, fire-broken stones, chipped flint and stone implements were found below the modern bottoms of the trenches. The earth of which the walls are composed prove to have been thrown up by man because of the disturbance of the regular strata of the soil. The fort is separated from the point of which it is a part by a wall 205 feet in length that curves irregularly from bank to bank. All this wall is palpably of artificial origin as again shown by the disturbance of the soil layers. The base of the wall is 14 feet in thickness while the depth from the crest of the wall to the outer edge of the excavation is 16 feet. The average height of the wall from the bottom of the trench is 5 feet. Near the eastern side of the fort, where the hill is not steep, the wall becomes higher and the trench deeper. A depression in the top of the wall at this point seems to indicate an ancient gateway. The site is of early Iroquoian occupation and metallic implements or evidences of European contact were discovered.

3 Burial site near the mouth of Castile creek.

4 A large earthwork several miles southeast of Gowanda is at Point Peter (Cheney, p. 40). The earth wall is now obliterated. On the west side of the stream Point Peter reaches Cattaraugus creek in an abrupt bluff, on top of which is a half circular work, the open side being on the high cliffs above the creek. This work of 3 or 4 acres is on a level plateau, back of the narrow point.

5 Some pits are on John S. Ackerly's farm (Adams, p. 20, 270).

6 A burial mound in Dayton, 120 feet around and 10 feet high, was explored in 1889 by H. L. Reynoids, but the exact spot was not given.

7 In the towns of Leon and Conewango a number of burial mounds have been explored. "On either side of Conewango valley a chain of fortifications may be traced for more than 20 miles, interspersed with numerous mausoleums" (Larkin, p. 4). The mound described was on a hill above the valley. The interior mound approached an ellipse being 61 by 65 feet, with an altitude of 10 feet above the lower mound, which was 3 feet high. Eight sitting skeletons formed a circle within, and there were fine relics. The fields around showed ancient cultivation (Cheney, p. 40, pl. 3).

8 In the town of Napoli, one-half of a mile west of the Narrows on a high hill, 600 feet above the Conewango there is a mound 120 feet in circumference (Larkin, p. 16–17). On the west side a stream flows to the Allegheny. Dr Frederick Larkin, who conducted the writer to the site, described the mound as having a stone hut some 6 or 8 feet high within it. He found several skeletons within the cavity and many fine spearheads, "several amulets, gorgets and some axes." The mound is now discernible but has been levelled to a large extent and the flat stones that composed the vault lie scattered about.

9 Mr Cheney reported two rectangular excavations on lot 49, Leon, now considered natural, but there were relics, hearths and traces of ancient cultivation (Cheney, p. 40). Many of these so-called hearths are burnt places covering one-half of an acre. There is an enormous mass of burned stone and charcoal in a layer more than a foot deep in many of the sites described by Cheney.

10 In Randolph village, west of the Conewango and partly inclosed by it, was a bank across the level terrace, 60 rods long. More than thirty caches were formerly seen (Cheney, p. 41, pl. 4).

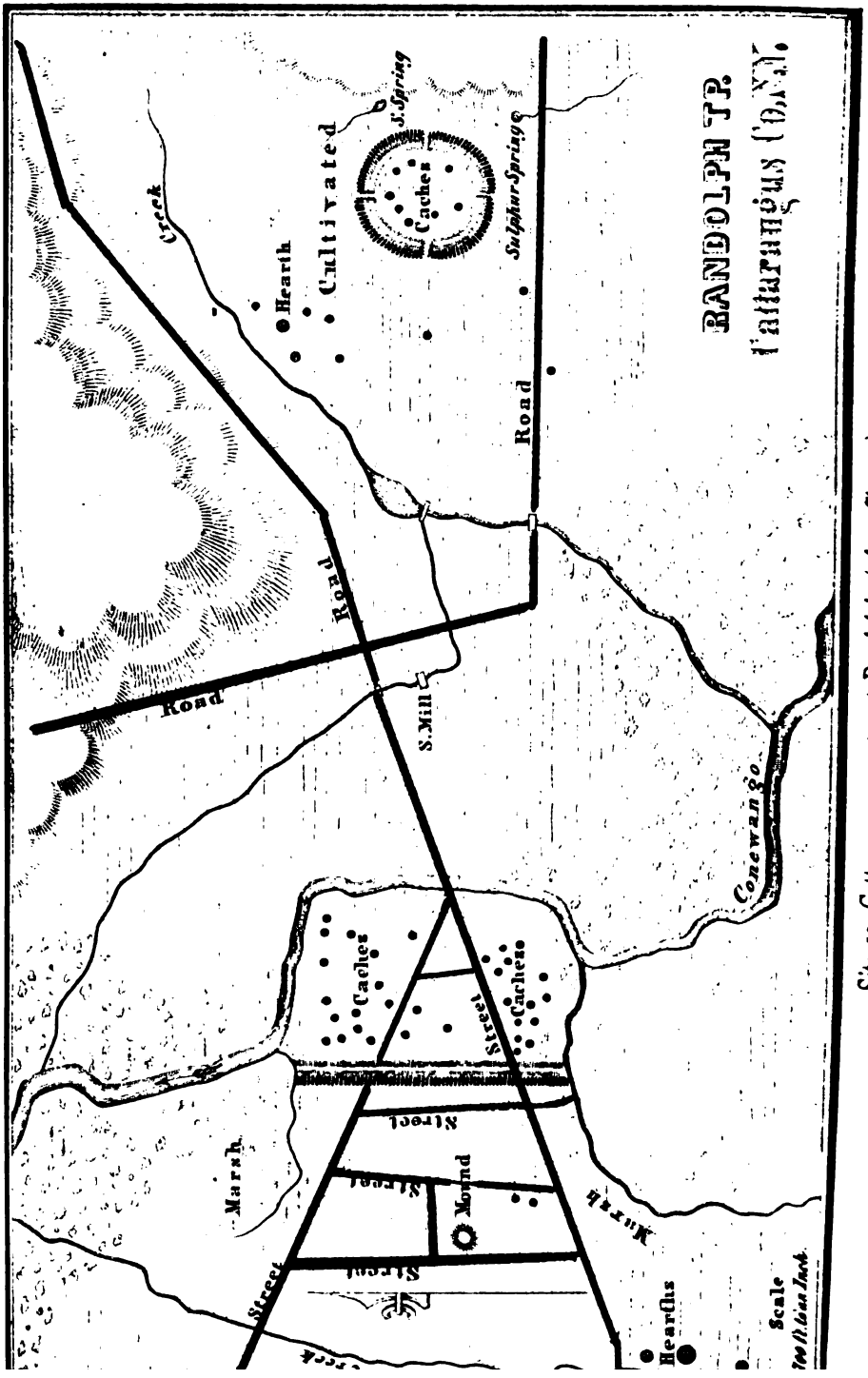
11 Mound near Randolph station. Doctor Larkin adds notes of interest, it being his home. Blocks of mica and stone hearths were found, and thousands of relics occurred within a mile around (Larkin, p. 10). Doctor Larkin commonly used the term "thousands" and "bushels," which may be true if broken flints, fire-burned stone and pottery fragments are counted.

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Plate 151



Site 10 Cattaraugus county at Randolph (after Cheney)

12 A nearly circular work, 1 mile east of this group, is about 1000 feet around and has four gateways each 12 feet wide. There are hearths and caches. It is included in the last plan (Cheney, p. 841). The work is near the home of J. E. Weeden, and has an area of 3 acres (Larkin, p. 10). The earth ring is on a level tract near a brook. It is still visible though the walls have been reduced.

13 A circular work on Elm creek, near East Randolph, is 287 feet wide with many caches (Cheney, p. 40, pl. 2, no. 2). Larkin says that hundreds of relics have been found. Mr Reynolds thought this a work of 1 acre, on J. N. Metcalf's land. The earth wall was still visible when visited by the writer in 1906.

14 Mounds 2 miles from the Allegheny up Cold Spring creek. "There were two sepulchral mounds about 10 feet high" (Larkin, p. 27). Both have been excavated but traces of each were visible in 1908.

15 A mound in Cold Spring 500 feet west of the Allegheny river was 20 feet high and 200 feet around. "Cart-loads" of bones were taken from it with fine copper and stone articles (Larkin, p. 22). This mound is still visible but has been dug until it has been reduced considerably in height. There seems to have been a village site here.

16 A circular work on the south side of the Allegheny river in Bucktooth township (now Red House) is on a steep hill above Red House creek. It is not quite circular and is 1060 feet in circumference.

17 Several miles from this was a burial mound on the north side of the Allegheny, which was 10 feet high (Cheney, p. 42).

18 Several miles below this was a circular work on the east bank of the Allegheny, 300 feet in diameter which seemed recent. Relics are found all along the river. Several other works are reported to exist at some distance from it (Cheney, p. 42).

19 Tunesassa is a Seneca Indian village at the mouth of Cold Spring creek.

20 Genesinguhta, now Old Town, was a Seneca village of the last century on the Allegheny in Elko (Adams, p. 41). Relics are still to be found and include pottery, pipes, brass and silver ornaments and flints.

21 There was a council house at Horse Shoe bend on the Allegheny, in Great Valley, and 2 miles above was Killbuck, a deserted village (Adams, p. 690). This was a Seneca settlement.

22 A fort site is reported by J. E. Chase as being near Great Valley.

23 In Carrollton nearly opposite the village of Limestone is a circular work about 1000 feet around, in the valley of the Tunaeng-

want. A large gateway with breastworks led toward a stream on the north. Large quantities of bones were found, with hearths and caches (Larkin, p. 29-30, fig. 8). French describes a work on the flats, in the form of a figure 8, which may be the same. Larkin adds, "The valley of the Tunaengwant, together with that of Great Valley, Wright's creek and in fact nearly every stream that is bordered by fertile lands, were once occupied by the mound builders. Vestiges of ancient works are numerous, such as military fortifications, sepulchral mounds, flint arrowheads, mica and copper relics. As we pass up the Allegheny from its junction with Tunaengwant, we find the faded remains of the ancient people at every step" (Larkin, p. 31).

24 At Olean the canal passed through a burial mound, 40 feet wide by 60 feet long and 10 feet high (Larkin, p. 31).

25 There was a group of small mounds at the confluence of Olean creek and Allegheny river (Macauley, 2:113). These have now been destroyed but there are abundant traces of Indian occupations in the vicinity of Olean.

26 In Hinsdale, about 5 miles north of Olean, and near the west side of the creek, was a circular fort of about 3 acres. Around it relics were abundant (Larkin, p. 31). This was on Peake's and Gould's land.

27 A fort at the Jackson schoolhouse, 2 miles northwest of Versailles, at the mouth of Castile creek, was excavated by M. R. Harrington for the Harvard Peabody Museum. All forts along Cattaraugus creek are on high points, formed by tributaries of that stream. All have a single and nearly straight bank, except that at the schoolhouse in which there is an opening in the bank. The walls are about 20 feet apart and 180 feet long. The outside or eastern ditch is deep, and the interior one broad and shallower. The outside wall is now 5 or 6 feet high from the bottom of the outer ditch, and about 4 feet above the inner one. The occupation is similar to that of Burning Spring and is Iroquoian.

28 Camp site west of the Jackson schoolhouse.

29 The Indians report four forts between Versailles and Gowanda, within as many miles. The only one known to the writer is one on a "hog-back" running into the creek on the reservation road just before the Gowanda hill is reached.

30 Mound on N. E. G. Gowan's land, near Rutledge, 6 feet high and 20 feet in diameter, in which were stone relics and ashes. Nine skeletons sat in a circle, back to back (U. S. Bur. of Eth., 1890–91, p. 508).

31 Mound along the river west of Vandalia opened by K. Tandy Jemerson.

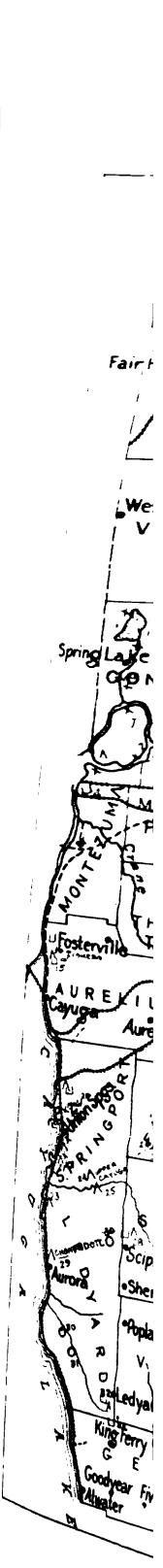
32 Mound west of the mouth of Trout creek in the town of Carrollton. Moses Shongo found a complete pottery vessel here. It is now in the State Museum.

Cayuga County

General occupation. Cayuga county is one of the few localities in the State that contains within so small an area so large a number of earthworks and village sites. These are distributed along the Seneca river and around the shores of Cayuga lake. The county has long been a hunting ground for amateur archeologists and many scores of sites have been ruthlessly exploited by the relic hunter. Like other counties in this general geographical region, there are evidences of several occupations. Before the coming of the Cayuga Indians into the northern part of the country the makers of the polished slate implements had lived there, leaving numerous evidences of their early occupancy. As is the case in other regions, however, very few graves of this culture have been discovered and most of the relics of it have been picked up on the surface. The later Cayuga-Iroquois, however, left numerous traces and their earthworks, village sites and burial grounds are scattered throughout the county.

One of the sites which particularly attracted the attention of E. G. Squire was the hilltop fortification near Auburn. This earthwork he describes in detail.[1] The earthwork is situated on a high, steep side hill overlooking the city of Auburn, and is defended by the steep slope and the ravines. An embankment surrounded most of the fortification and Mr Squier noted eight gateways. Another interesting fortification is in the town of Mentz, 6 miles northwest of Auburn and 3 miles from Throopsville. This earthwork is situated on the crest of a ridge running north and south, just east of the road to Byron, the fence not running more than 2 rods from the eastmost embankment. But one gate is noted and this is near the southwestern portion of the inclosure. Other fortifications of this character in the county are of considerable interest but these two are typical. A later Iroquoian stockade site was in the town of Ledyard 4 miles south of Union Springs. The great castle of the Cayugas was not far from this point, being on the north bank of Great Gully brook, about 1½ miles from the lake. An important settlement attractive alike to the early and later Indians was on the range about Farley's Point.

[1] The Aboriginal Monuments of New York, E. G. Squier, p. 36.



Vandalia opened by K. Tandy

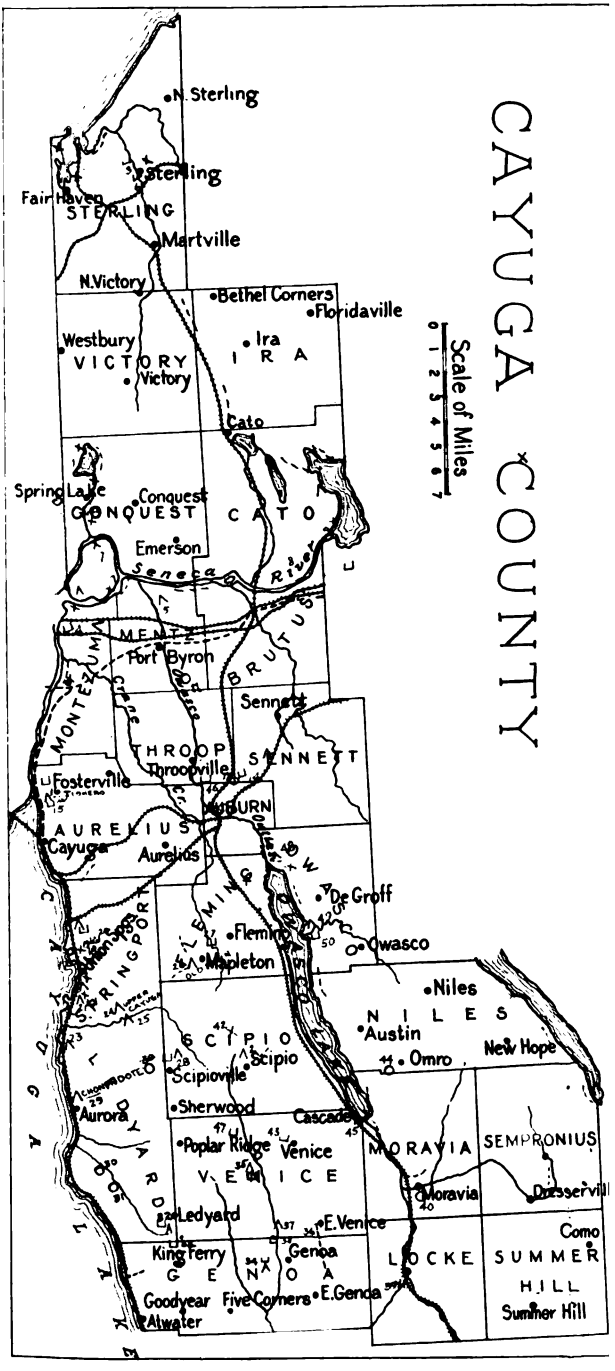
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[1] Based on Beauchamp's list.

Many of the clay pipes of the Cayugas have several differences that mark them as historical Cayuga. The bowl is shaped somewhat like a pottery vessel and decorated over its entire surface with small lines placed closely together in triangular patterns. This bowl sets squat at an obtuse angle upon the stem. Pottery of this kind, together with fragments of earthen vessels, are found on nearly every Cayuga site in the county.

The principal authorities on this county are Dr William M. Beauchamp, Gen. J. V. H. Clark, E. H. Gohl, of Auburn and W. W. Adams of Union Springs. A considerable amount of interest is manifested in Auburn by the Cayuga County Historical Society in the antiquities of the region.

Location of Sites [1]

1 Arrowheads and other implements are found around Spring lake, in Conquest. They would naturallly occur along the trails leading to Lake Ontario. Some small burial mounds were a mile south of this village, and there were also fireplaces and shell deposits toward the river. (Hinsdale)

2 There was a village site in the town of Scipio; also graves, on the Watkin's farm.

3 There was a burial place on the Sterling Mine's farm, in Sterling.

4. In the town of Montezuma was a burial. This was on the Sibley estate, Eagle Bluff, north of the New York Central railroad tracks.

5. A village site was in the town of Mentz, on the J. W. Sperry estate.

6 A burial was also on the Pierson farm, in Sterling.

7 There were camps on Howland island, in the Seneca river, and many relics have been found. These seem to be of an occupation much older than the Iroquois.

8 Gen. J. V. H. Clark says that the Onondaga had also cleared off what is called the salt fields, in the town of Cato, and had a small settlement there.

9 On the west shore of Cross lake just north of the Seneca river there is an early site with rude relics.

10 A burial place was found at Bluff point east of the Seneca river and near Fox Bridge in 1894. The relics were modern. The point is "about 20 rods north of the New York Central railroad tracks, a marsh separating them, and is parallel with the east bank of

[1] Based on Beauchamp's list.

Seneca river. It contains about 27 acres of gravelly soil." The skeletons were found at the extreme south point. This was probably the burial place of Onontaré.

11 Squier described a small work 6 miles northwest of Auburn and 3 miles from Throopsville in the town of Mentz, and by the road to Port Byron. "The work is built upon the crest of a narrow ridge, which extends nearly north and south, and along which the main road passes." The walls were then 2 or 3 feet high. Some comparatively recent relics had been found, as well as skeletons within and without the walls. There was one gate. He thought this might be a work mentioned by Macauley at Montezuma, which is 4 miles northwest and in the next town. That work has not been found.

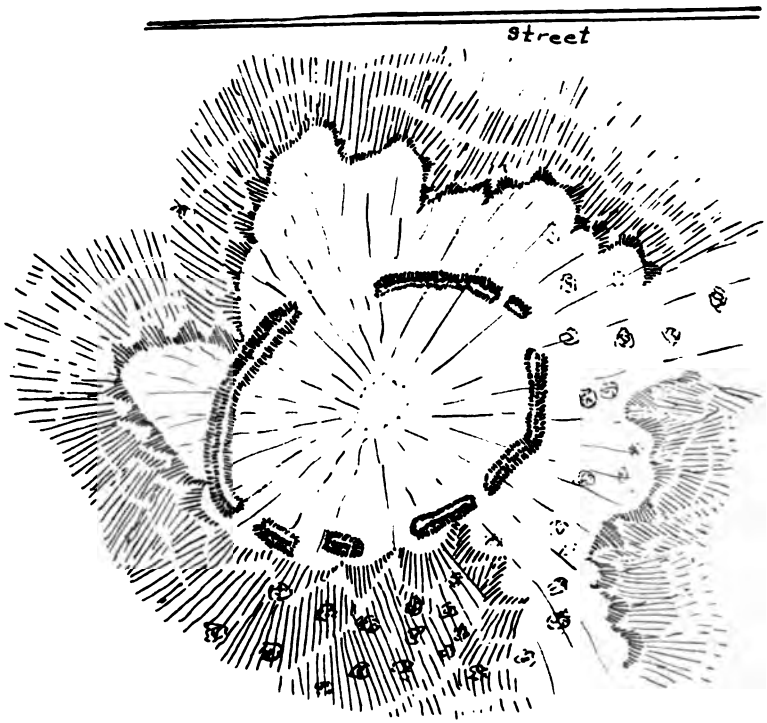


Fig. 71 Sketch map of Fort Hill, Auburn. After Squier. Cayuga county, site, 13.

12 There is a site of 2 acres in lot 28, Sennett, 2 miles northeast of Auburn, with relics of earthenware and stone.

13 The work at Fort Hill, Auburn, has been figured by Squier and Schoolcraft, of which a small part remains in the cemetery, front of the Logan monument. Figure 71 gives Squier's plan which differs slightly from the other. The wall was not continu-

ous and may never have been so. The north and south axis from the outside base of the bank was 410 feet, and the east and west 416. There were several openings in the wall, of which Squier said: "It has been conjectured by some that the walls here have been washed away, but it is clear that there was a slight necessity for defenses at this point, and that none ever existed beyond what may be traced." The descent was abrupt on all sides, and there were caches. The bank was 2 or 3 feet high in 1850, with a corresponding ditch. (Squier, p. 49, pl. 5, no. 1.) The walls are still well preserved at this writing.

14 Macauley described another fort in Auburn, 2 miles northeast of this, containing 2 acres, with a bank, ditch and gateway. It was on North street, near the present railroad crossing. When the land was cleared about 1790, the bank was 7 feet high, and the ditch 10 feet wide. It was 350 paces in circumference, and had a gate to the northeast. Hammerstones, earthenware and triangular flint arrowheads were found. Not far off was a mound filled with skeletons, probably a natural elevation. DeWitt Clinton more correctly said it was a mile north of the last, but he may have overestimated the area. He also stated that it had a north gate, the entrance of which must have been from the west on account of the overlapping of the wall.

15 There is a cemetery, etc. with modern relics on John Morse's land 3 miles north of Cayuga. It is covered by an orchard.

16 North Cayuga, St Stephen's or Thiohero, was 2 miles north of Cayuga village, on lot 24, Aurelius. The site occupies 3 or 4 acres east of the canal and north of the highway. Jesuit rings and European articles are found. In an early cache nearby was found a plate of mica and other curious articles. This and most of the following sites were reported by W. W. Adams of Mapleton. Gen. J. S. Clark said that Choharo "was the Tichero (Thiohero) or St Stephen's of the Jesuit relations, said to signify the place of rushes, at the foot of Cayuga lake on the east side, at the exact point where the bridge of the middle turnpike left the east shore. The trail across the marsh followed the north bank of an ancient channel of the Seneca river. . . . The salt springs mentioned by Father Raffeix in 1672 were on the west side of the marsh about a half a mile north of the New York Central railroad bridge."

17 In a burial place on Frontenac island, Cayuga lake, skeletons were found on a rock 2 feet under ground.

18 Stone relics alone are found on a site of 10 acres on Yawger's point, north of Union Springs, lot 92, Springport. Lodge sites appear over the whole field.

An early site on lot 85, on the same point, occupies 2 or 3
The graves occupy a plot 40 or 50 feet. Long shell beads
ound but nothing European.

J. W. Kales found bones of men, women and children in a pit
north of Union Springs and near the lake. There were no
(Smithsonian report 1881). General Clark also mentions
auga, a small hamlet on the present site of Union Springs
on the east side of Cayuga lake."

There are several early sites on Farley's point, south of Union
gs, and on lot 7, Springport. Mr Adams thought part of
ga Castle was on this point but found only early relics. The
omprises 8 or 10 acres and the graves occupy a small area.
elics are of stone and shell with clay and stone pipe and pottery.

There was a stockade in Ledyard, 4 miles southeast of Union
gs; the walls are still mostly undisturbed. It was described by
quier, whose plan is used on a scale of 400 feet to the inch. It
recent and is on a point between two deep ravines. A some-
pyriform space is inclosed at the end of the point which is
300 feet in diameter. The curving stockade takes in about
f the outline; the holes are 8 inches in diameter. There are
within. From the extreme point of the plateau the "Indian
follows a narrow spur to the water. The banks of the
is are 175 feet high. (Squier, p. 88, pl. 13.)

Morgan says that Gayagaanha, the principal village, was on
n creek 3 miles south of Union Springs.

Gen. J. S. Clark speaks of "Cayuga Castle, an Indian town
ning fifteen very large houses of squared logs, on the south
Springport . . . on the north bank of Great Gully brook and
1 to 2 miles from the lake."

A site on lot 114 Ledyard is supposed to be Upper Cayuga.
are fireplaces and a few graves with European relics and
fish hooks. General Clark speaks of "Upper Cayuga, an
town of fourteen very large houses, near the north line of
rd . . . on the south bank of Great Gully brook and as
rs on the map between 1 and 2 miles from the lake." The
ce is more than 3 miles.

East Cayuga, or Old Town, was one-fourth of a mile west
pleton, on lot 95, Fleming. Area, 10 or 12 acres east of the
The relics are recent. Clark notes that "East Cayuga, or
own contained thirteen houses, in the southeast corner of
wn of Springport as indicated on the map from 3 to 4 miles

from the lake. A site in the southwest corner of Fleming was a site of this town at about this time," which was 1779.

27 Cemetery of half an acre on lot 89, west of Fleming village. Modern relics.

28 Site of 10 to 15 acres at Scipioville, with recent relics. Nearly level ground. There was a burial place.

29 Clark says that "Conondote was an Indian town of fourteen houses on the site of the present Aurora; according to George Grant's journal it contained 1500 peach trees."

30 Stockade found on Isaac Carpenter's farm near the north line of lot 67 Ledyard, in 1887. Area 2 acres, with potsherds, pipes, celts and broken bones and skeletons. It is a level point between two ravines. There was a simple stockade 100 feet long from Payne's creek on one side to a small stream on the other.

31 On lot 68, in the town of Ledyard, is a stockade site mentioned by Macauley, near Aurora. It was "2 miles from the village in a southeasterly direction, the area triangular, containing 2 acres. Two of its sides were defended by precipitous banks, the third by an embankment and ditch. Fragments of earthen vessels and the bones of animals have been found in ash pits. It is near Paynes creek and the relics consist of stone articles and potsherds."

32 A cemetery of one-half of an acre is 2 miles south of Ledyard postoffice, on lot 83. The village site is one-fourth of a mile farther south. Earthenware occurs.

33 A cemetery in P. Stafford's woods, west of the road and one-half of a mile north of Kings Ferry. Nothing was found with the skeletons, which were in rows.

34 The Sterner site is a mile south of Genoa, occupying 1 or 2 acres on both sides of Salmon creek. It is on lot 17, with recent relics and occupied with graves.

35 A village site is on the west side of Big Salmon creek, lot 74, Venice, 2 miles south of Venice Center. The cemetery is east of the creek, on a small knoll one-eighth of an acre in extent. Shell gorgets and European articles are found there. The village is on level land on the other side and farther south.

36 The Indian fields commence on the Hill farm, lot 88, Scipio, and extend across Venice 5 miles into Genoa, being about a mile wide on the west side of the creek, while Myers is the only place of importance on the east. Recent relics are found on almost every farm, and in early days large quantities of brass were taken from them.

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Chautauqua County

General occupation. The principal areas of occupation in this county are:

1 The lake shore between the western and eastern boundaries of the county, that is to say, from the state line to Irving. In this tract the principal sites are near Ripley, Westfield, Portland, Fredonia, Sheridan, Silver Creek and Irving. As may be expected there are traces of different peoples and a wide variety of relics.

2 The hilly country south of the lake and lying in the townships of Mina and French creek. There are mounds and earthworks near Findley lake and many traces of occupation along the valley of French creek.

3 The region about Chautauqua lake where there are mounds, village sites and many camps.

4 An extension of this area up the valley of Cassadaga creek where there are numerous remains near Falconer, Gerry and about Cassadaga lake. This includes the valley of Mill creek running through Sinclairville where there are remains on the creek bank in Sinclairville and on the hills to the east and south.

5 The valleys of Clear creek and Conewango running through the town of Ellington. Here within the township of Poland, Ellington and Cherry creek are numerous interesting remains. Some of the most interesting are in Ellington and along the valley of Clear creek where there are many earthworks, mounds and ancient village sites. In Poland there are mounds and camp sites along the banks of the Conewango while southward on the west side of the creek between Frewsburg and the valley of Stillwater creek on the south side are further remains.

6 Most interesting sites are found along the banks and the highlands upon the south shore of Cattaraugus creek, in the corporation of Irving. Here on the hilly lands are a number of ancient sites yielding polished stone implements. The county was evidently occupied from very early times. Camp sites are found not far from deposits of mastodon bones in Sheridan.

A survey of Chautauqua county leads to the discovery that there were at least three distinct cultures or successive occupations of this region differentiated by very wide characteristics. There seems some evidence also of a fourth occupation.

The oldest occupation definitely traceable is that characterized by the notched and shouldered arrow point and large spear point, by

the total absence of clay pottery and of bone implements, by the absence of pits except a few shallow ones containing charcoal only. The village sites of this culture and occupation are situated alike on hills and in valleys and seem to have been spread out rather than close together. On sites of this description the gorget, bird and banner stone and other polished slate articles have been found, although most of the celts are of the common type, that is, symmetrical and equilateral. Beveled back adzes are found, also. Stone pipes are not uncommon, some of which are of the flat base or monitor type. Mounds in which these same articles have been discovered seem to indicate that the mounds are relics of this occupation. These mounds are nowhere so large as those of Ohio or Wisconsin, and seldom exceed 50 feet in diameter and 8 or 10 feet in height. On sites of this description grooved axes are sometimes found although they seem to have been acquired from another culture elsewhere by trade or otherwise. The human remains of the occupation are extremely rare and probably none has ever been found suitable for measurement or comparison.

The second distinct culture is that known as the early Iroquoian and is susceptible of two divisions, the prehistoric and historic. The historic or second stage of this culture is undoubtedly Erian, but the prehistoric or first stage is better termed Iroquoian and differs from the second in several material points.

The third culture or occupation traceable is that of the Confederated Iroquois, presumably the Seneca who held tracts of land here during the late part of the eighteenth and early part of the nineteenth centuries. This occupation was not of long duration nor are its evidences widely traceable.

The early Iroquoian occupation is characterized by inclosures surrounded by low walls of earth, by ossuary burials, by triangular arrow points, by a lack of notched spears, by a lack of objects buried in the graves, by Iroquoian pottery, by shallow pits containing no bone objects or bone refuse, but frequently some pottery and flint chippings. The earth inclosures vary in area from less than an acre to 5 or even 7 acres. When convenient, points of land extending from a terrace out into the valleys were fortified at the neck and cut off from the general plane. The earth circles or inclosures and fortified necks are locally termed "Indian forts" and some undoubtedly were such. Some old writers have called them "ceremonial rings" and have expatiated on the wonders of the "true circles." Investigation, on the contrary, demonstrated

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banks of the creek on either side. The wall was semicircular. "The trace of a very large pit occurs in front of the embankment. The usual Indian relics, such as ancient pottery, etc. have been observed here" (Cheney, p. 46). Larkin (p. 37) says of the pit: "A great amount of arrowheads and spearheads, some of which were composed of copper, together with a quantity of charred corn, were found in the pit. Adjacent to this intrenchment fragments of human bones have been disclosed in such an advanced stage of decay that they whitened the soil." This was on Dr A. P. Phillips's land a mile east of Fredonia and on the bank of Canadaway creek in Pomfret. Reynolds (p. 511) makes it circular, with an area of 1 acre. On the George Button farm were found arrows, pottery and fragments.

8 A circular bank on the farm of Joel Button in the same town, 2 miles east of Fredonia on the Forestville road, is on both sides of a stream. It has yielded pottery, pestles and celts (Reynolds, p. 511). Area 3 acres. Flat land. There are several sites in this general region that seem to be early Algonkian in origin.

9 A mound in the village of Fredonia was 7 feet high. Skeletons and stone articles have been found (Reynolds, p. 511).

10 A fort site on lot 35, town of Sheridan contains graves.

11 Camp site on the C. O. Breen farm in Sheridan. Pottery is found.

12 Mound with Indian relics in vicinity on the Stewart Christy farm in Sheridan. The mound is probably natural.

13 A mound in Fredonia, 30 feet high and 90 paces around, claimed to be artificial, is natural. It is known as the Indian mound (U. S. Bur. of Eth., p. 511). Indian relics are found in the vicinity.

14 There was a large circular work near the Erie Railroad crossing on the road from Fredonia to Forestville. In and around this were stone relics and many pits, in pairs. In a large grave many human skeletons of all ages were mingled (Young, p. 18). Mr Cheney said this work was the largest he saw, having a diameter of 860 feet and inclosing 13⅕ acres. The road passes through it nearly east and west. There were two pits of unequal size without the wall. Pottery and entire skulls occurred. The work is "the last among the series of ancient fortifications which once extended along the Cassadaga and Canadaway creeks, and thence upon the hills bordering upon the waters of Lake Erie." Many had been obliterated (Cheney, p. 47, pl. 11). This work is on lot 35, range 11.

15 Mr Reynolds reported a circular work on J. G. Gould's farm, 3 miles from Forestville on the Dunkirk road. It occupied about 3 acres on a bluff above Walnut creek. There were forty

or fifty pits on the opposite side of the road (U. S. Bur. of Eth., p. 511). Mr. Sherrard also referred to walls and ditches near that farm. "These fortifications are somewhat numerous and extensive, reaching over into the town of Pomfret, where a hill known as Fort hill gives unequivocal testimony of the work of man."

16 Mr Reynolds reported a bone pit in front of Mr Gould's house in Sheridan. In this ossuary were human bones of persons of all ages and without arrangement. In a grave near this were five skeletons in a circle, with the feet outward (U. S. Bur. of Eth., p. 511).

17 A circular mound, 30 feet in diameter and 7 feet high, is 40 rods from the east shore of Cassadaga lake. Decayed skeletons were removed in 1822. Many hearths were near the mound, which had an average breadth of 30 feet. The large stones showed intense heat. There were numerous caches, 4 feet broad and 2 feet deep (Cheney, p. 46).

18 Not far off was a line of fortifications across a peninsula on the south shore, inclosing a large area. The numerous relics were of fine pottery, celts and iron implements (Cheney, p. 46, pl. 10). Mr Cheney's plan of these two sites is given in figure 20, on a scale of 500 feet to the inch.

19 Doctor Larkin described a curious oblong mound on a point in the lower lake. It was on the southwest side, and had a long axis of 7 rods and a short axis of 5 rods. It is natural, but contained burials with relics. There were evidences there of graves in 1907. On the edge of the plateau, 12 rods from this was a bank 20 rods long, and in the rear of it another running from shore to shore. Many relics were found on the level land near by.

20 A trench opened in Steadman in 1867 was full of human bones, but was without relics. It was on the line of the town of Harmony. There were over twenty skeletons arranged in rows (Young, p. 19).

21 Two mounds were south of Fair point and west of Chautauqua lake. One was on Whitney's and the other on Billing's land. One was 4 feet high by 25 feet in diameter, and contained flat stones, human bones, flint knives, clay and stone pipes. The other was 31 by 38 feet in diameter. Ashes and gorget were found in it (U. S. Bur. of Eth., p. 505).

22 A mound on the west shore of Chautauqua lake, on John F. Morton's land, is 2 miles above Lakeland. Several fireplaces and piles of flint were near. (Reynolds). Relics are found all along the shore.

23 Not far from the mounds at the Narrows east of the lake was an old cemetery at Dewittville. Doctor Larkin reported "vast quantities of relics" in the vicinity and a cache of arrowheads (Larkin, p. 58).

24 On Bemus Point are old and recent sites. The old culture is of the mound-builder period and the more recent is modern Seneca. There is a large cemetery to the east of the point.

25 An obliterated bank was on the lowland nearly one-half of a mile back of Long Point, 2 miles above Bemus Point (Reynolds, p. 506).

26 At Griffith's Point in Ellery, east of Chautauqua lake, are two mounds (Young, p. 20). Mr Cheney placed them near the Narrows and 100 rods from the shore, directly in the rear of the point. They were 5 rods apart, 66 feet in diameter and 6 feet high. Figure 21 is his plan reduced to 1000 feet to the inch (Cheney, p. 47, pl. 12). They were afterward examined and reported as 40 feet in diameter. Three human skeletons and one of a wolf were found, besides copper articles and mica. Still later Mr Reynolds described the mounds as near Bemus Point. One was 6 feet high and 39 feet in diameter. This contained copper articles and mica. The other was 5 feet high and 65 feet across. There were traces of an earthwork back of the point (U. S. Bur. of Eth., p. 505–6).

27 There was a circular work 1½ miles south of Sinclairville on lot 46, Gerry, with an area of 3 acres. It yielded skeletons and rude stone implements. A large cemetery was 130 rods northeast of this, out of which fifty skeletons were taken in 1825 and twenty-five about 30 years later. They were in a "sitting posture," the alternate rows facing each other (Young, p. 19). This was on B. F. Dennison's farm, on the Jamestown road near Sinclairville (U. S. Bur. of Eth., p. 510). Bones may still be found on the site. There was also a nearly circular work 60 rods north of this and on William Scott's land. It had a depression in the center and a gate at the north. It is on lots 30 and 38 (U. S. Bur. of Eth., p. 510). This was excavated in 1907 by the State Museum. The culture is an early unspecialized Iroquoian. Graves and ossuaries were found but no relics were found in the graves.

28 There were two breastworks on the north and south boundaries of Sinclairville, with a large circular work between them. The gate was on the south side. Six or seven acres were inclosed in the heart of the village. On a high bluff above Mill creek on the west was a circular work with deep excavations (Young, p. 19–20). A slightly curved bank, without gateways and 100 rods long, crosses

Sinclairville from bluff to bluff, precipices defending the other sides. The area is nearly square (Cheney, p. 45, pl. 9).

29 There are two works on the farm of John Almy, South Stockton, a mile across the Cassadaga valley and nearly 60 rods from the dividing lines of Gerry and Ellery. The larger and southeastern one is in the shape of the letter **D**, the straight line fronting the eastern edge of the bluff. A northwest gateway connects with a ravine, across which is the gate of the smaller, opposite and circular work about 6 rods away. The latter incloses half an acre (Larkin, p. 50, fig. 11).

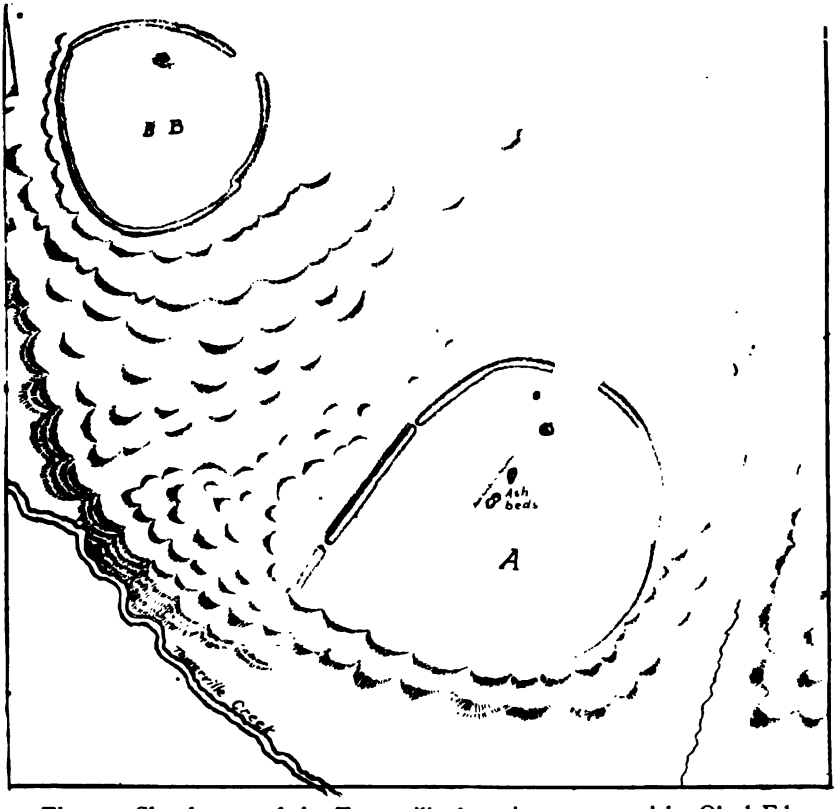


Fig. 72 Sketch map of the Towerville fort rings, surveyed by Obed Edson

30 There was a circular work 60 rods south of this, on the farm of S. M. Tower. It "was a true circle, facing the south and divided in the center by a straight line." This was on a plain on the west side of the Cassadaga valley. From the western side of the fort a ditch,

20 rods long, reached a stream at a height sufficient to carry the water within the walls, inside of which were hearths, caches, pottery and arrowheads (Larkin, p. 53). Mr Reynolds reports these rather differently. The one on the Tower farm is 80 rods south of the others, and is a circle inclosing 2½ acres. Accurate surveys of these sites have been made by Obed Edson, Esq.

31 An elliptic work is on a plateau 150 feet above Cassadaga creek and on the north side of a small stream. The bank is 495 feet around, with a gateway 10 feet wide. A trail leads to the stream and in the center of the work is a large and deep pit.

32 Another work is on high land 160 rods from Cassadaga creek, with a small stream on the southern side. Many skeletons within had horizontal burial. Within and without were vast quantities of implements and large caches were near. From the gate in the northeast part a trail led to a cemetery 50 rods away. Here were three large rectangular graves with from thirty to sixty skeletons in a "sitting posture" (Cheney, p. 45, pl. 8, fig. 2).

33 In "the village of Bucklin's corners was an ancient cemetery where a great number of human skeletons have been exhumed" (Larkin, p. 50). Bucklin's corners, or Gerry Center, is now in the village of Vermont.

34 Three-fourths of a mile south of this was an elliptic work of 7 acres, on high ground overlooking the Cassadaga valley. Much of this was visible in 1880, according to Doctor Larkin.

35 Two miles southeast of Sinclairville was a circular work (Young, p. 19).

36 An oval work was 3 miles south of Sinclairville on Shepardson's farm (Reynolds).

37 An earthwork is on a precipitous hill 125 feet high. It is in the form of a parallelogram, 290 by 627 feet. In the center of the south wall is a wide gateway, "with elevated mounds upon each side to guard the entrance . . . Along the buttress, extending upon the northern side of the hill, were vast masses of stones, apparently for defense. Great quantities of relics have been found" (Cheney, p. 43, pl. 7). The site is on the Boyd farm, 2 miles above Ellington. There are stone relics (U. S. Bur. of Eth., p. 508). The walls yet remain but have been reduced by plowing (see map, fig. 74).

38 Two circular works 52 rods apart, are 1½ miles above Ellington. Each is about 650 feet around, and the ditch seemed inside (Cheney, p. 43). Two circular works were on the north side of Clear creek 2 miles above Ellington, on F. Lawrence's farm. One was 190 feet in diameter. Opposite these, on the south side of the

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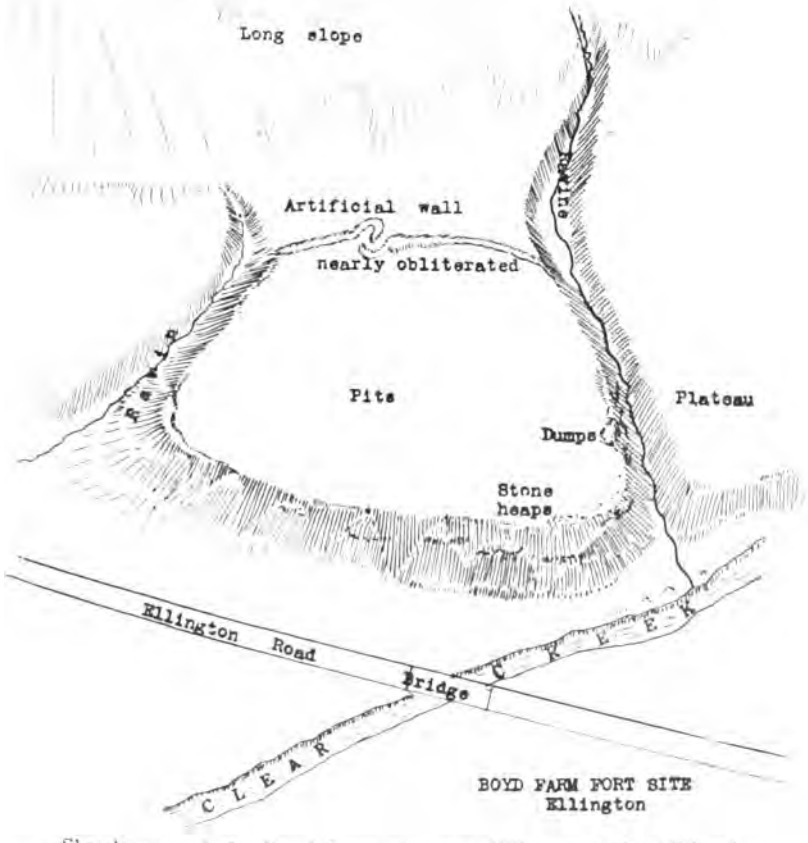
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Plate 154



Sketch map of the Boyd farm site near Ellington (after Edson)

creek, was the large parallelogram work last described, 2 miles above Ellington. Mr Reynolds gave a plan of one of these circular works, which is essentially reproduced in figure 90. Another fort was almost beside it (U. S. Bur. of Eth., p. 508, fig. 334). These earthworks are early Chautauqua Iroquoian.

39 The "old fort" on the hill above Ellington is one of the most impressive of the hilltop fortifications in the State. It is situated on a projecting hill that juts into the Clear creek valley and stands like a sentinel guarding the procession of walled inclosures in the valley to the north. Plate 155 gives the general appearance of this earthwork. The walls form an ellipse measuring 175 by 270 feet in their diameters. The site seems prehistoric. Some corded pottery and an indeterminate pipe bowl were found. The occupied layers contain very little. Any metallic material found on the site is probably recent and due to the sugar camps and lumber sheds once on the hill. There are several large pits where some religious sect once dug for a "hidden book of revelation."

40 An elliptic work in Ellington, on Clear creek, is 168 by 218 feet. There is no trench and the wall is wide. A stone mound, 4 feet wide and 5 feet high, is 70 rods away and toward the creek (Cheney, p. 42, pl. 6. fig. 1). It is on Charles Gapleson's land, south side of Clear creek and 2 miles east of Ellington (U. S. Bur. of Eth., p. 508).

41 Large mound on a bluff above the valley on the Newel Cheney farm in the town of Poland, lot 37. This is probably the largest mound in the State. It is artificial and has a ringed wall about it (see plate 158).

42 Below the mound on the flat land are abundant traces of early occupations by some non-Iroquoian tribe.

43 A bone ossuary in Ellicott was near Dexterville.

44 There were two mounds on Albert Tiffany's farm on the line of the Holland purchase, 1½ miles east of Jamestown on the Ellington road. A gorget was found in one (U. S. Bur. of Eth., p. 505).

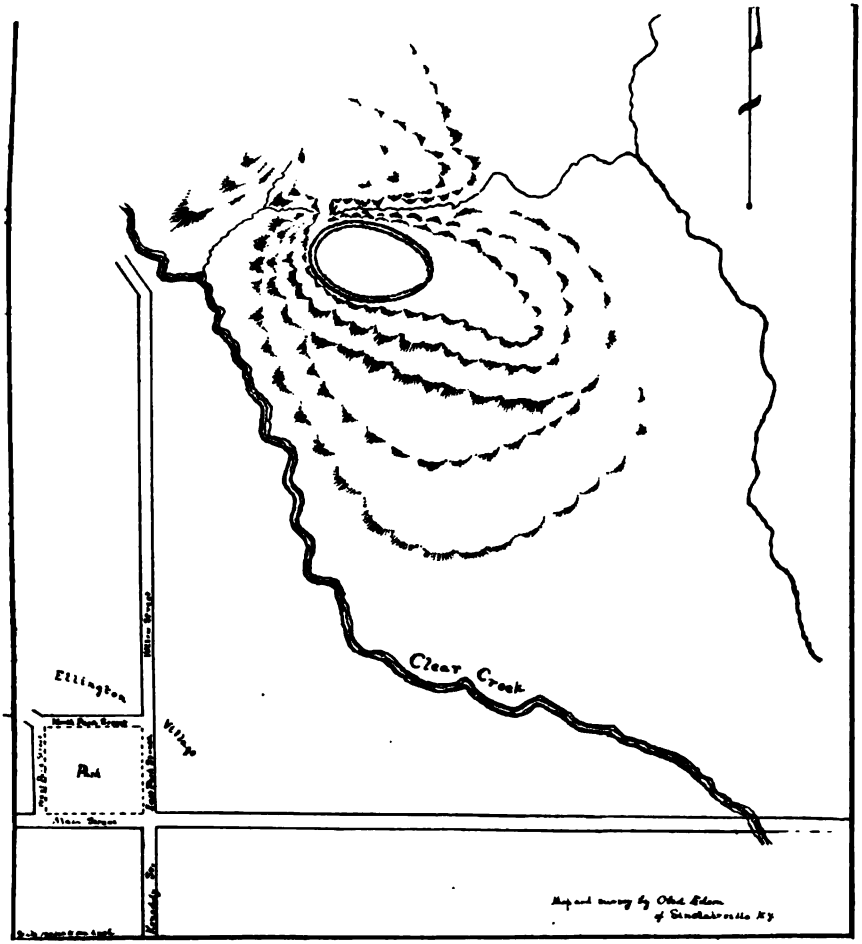
45 There was a semicircular bank near Falconer's on the Jamestown and Ellington road. It was near a stream and was 540 feet long (U. S. Bur. of Eth., p. 505).

In the present Falconer cemetery was a mound that was destroyed in grading the land. Relics are found nearby.

46 An artificial mound, containing large French knives and other relics, was opened near Jamestown a few years ago.

47 Skeletons were found under a large stump in Frewsburg. This is near a village site.

Plate 155



Sketch map of the hilltop fortification at Ellington, Chautauqua county (site 39)



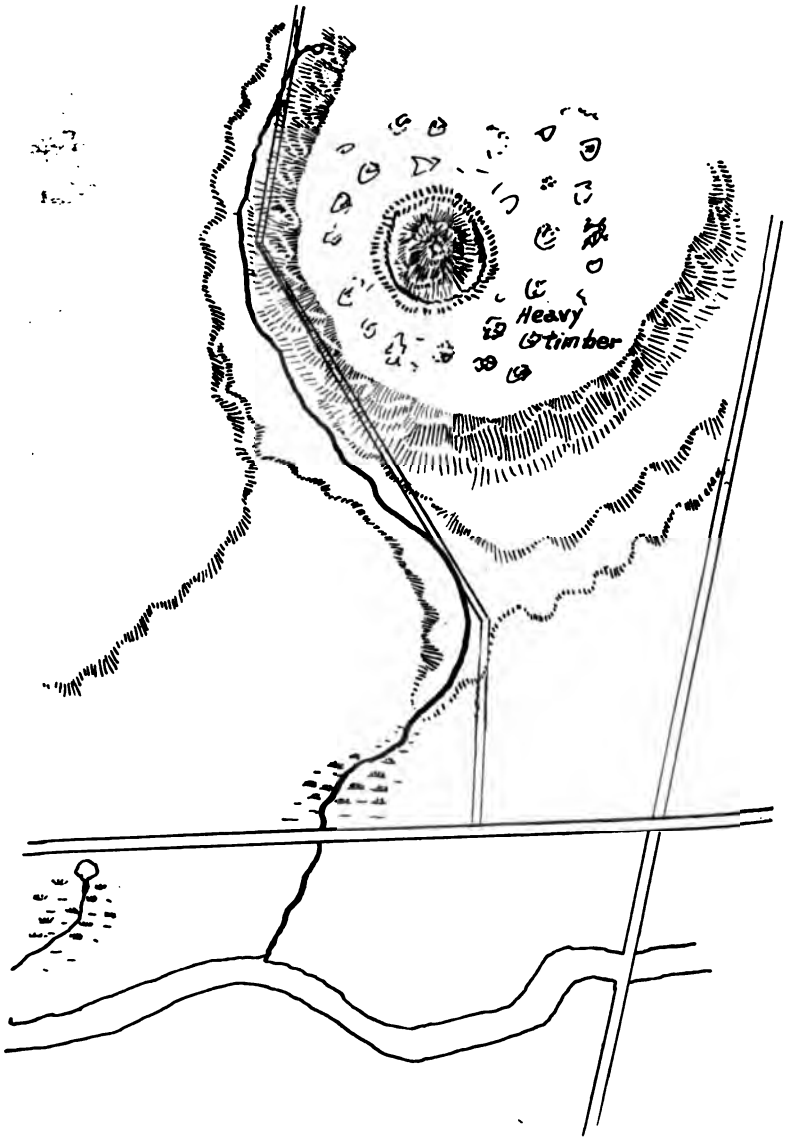
The hilltop stronghold near Ellington, Chautauqua county. The view shows the wall on the northern slope



Plate 157



Plate 158



Sketch map of the Poland center mound site

48 Large numbers of human bones have been found near hill (Larkin, p. 60). Numerous flint chips and a few entire ments, as spears and celts, have been found near here.

49 While digging a cellar on the lake front at Chautauqu tember 27, 1898, the workmen exhumed twelve skulls an bones. The entire lake front contains evidences of occupat

50 Traces of an Iroquoian site on the Broken Straw Harmony.

51 Camp site near Busti.

52 Village site near Kiantone.

53 Village and burial site on the lake shore northeast of Explored by M. R. Harrington and by the State Museum.

54 Small village sites at the mouth of streams just east above mentioned.

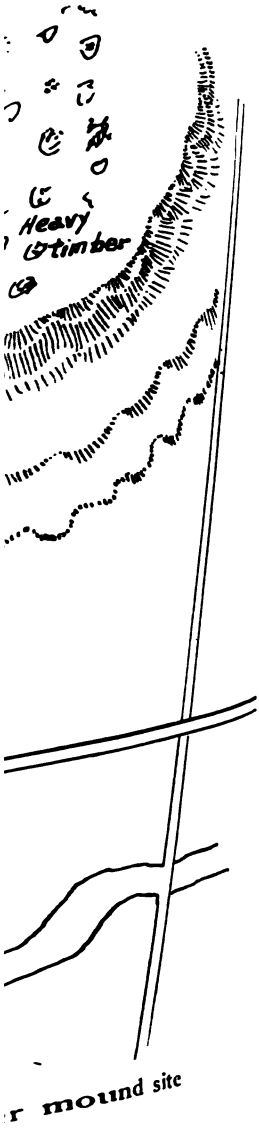




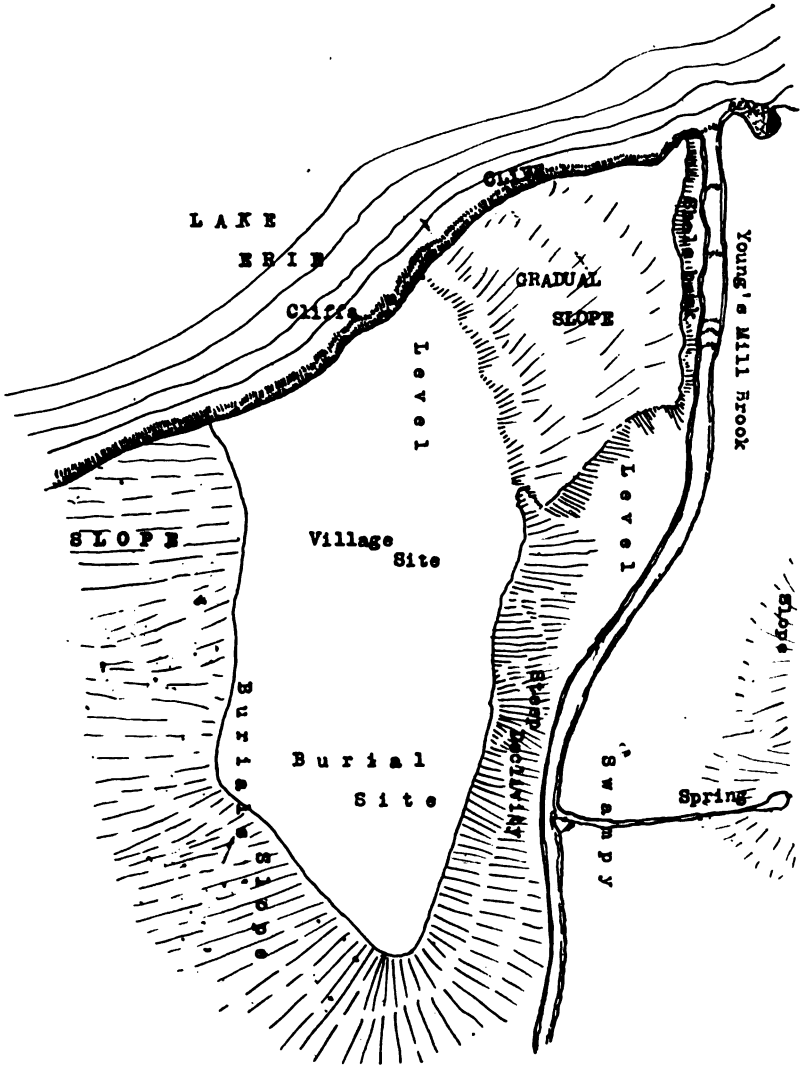
Fig. 73 Sketch of sites near Findley Lake, western Chautauqua

55 Obliterated mound just above the Findley Lake grounds; destroyed in grading the ball grounds.

56 Series of deep pits or hut rings in the woods at the s of Findley lake.

57 Circular stockade base west of Findley Lake village Job Skelly farm (figure 73).

Plate 159



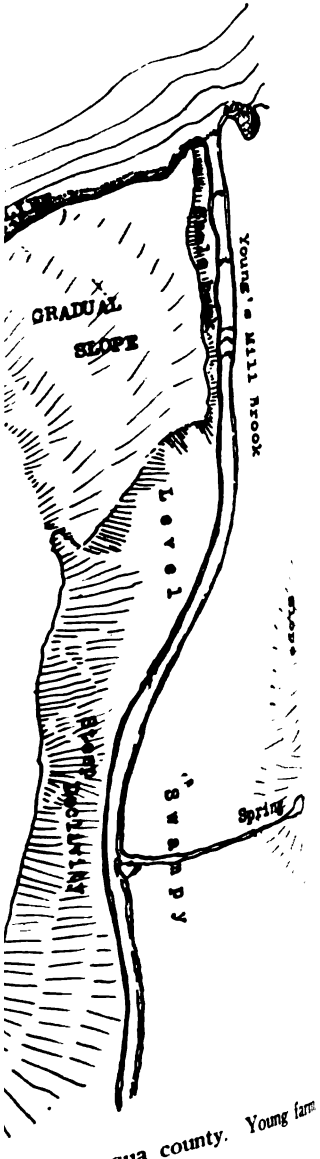
Sketch map of the Erie site at Ripley, Chautauqua county. Young farm.

58 Extensive village site of the mound-builder culture discovered by E. R. Burmaster on the Newton farm a mile southwest of Irving. The village of Irving covers another site of a similar nature.

59 Fortification reported on Walnut creek near Silver Creek.

60 Camp site and caches on Bear lake.

61 Recent village sites of the Seneca.



NOTES ON THE ABORIGINAL OCCUPATION OF THE CASSADAGA VALLEY

By Obed Edson

Stockton. Perhaps the greatest variety, most abundant and most interesting evidences of aboriginal occupation in the county have been found at the head and along the borders of the valley of the Cassadaga. Like the Conewango, the Cassadaga creek has its sources in a number of little lakes not far away from the shore of Lake Erie, but more than 700 feet above its waters. It flows southward through the more central part of the county and is a crooked and slow-running stream. It courses through the Cassadaga valley a distance of about 18 miles by a direct line, and nearly twice that distance following the windings of the stream, discharging its waters into the Conewango. The valley of the Cassadaga extends through the central portion of the county. It is a level and picturesque country of green and gently sloping hills. The Dunkirk, Allegheny Valley and Pittsburgh Railroad traverses its whole length. The town of Stockton includes the northern extremity of the valley.

In this town around the northerly lakes and near and in the little village of Cassadaga were many of these ancient aboriginal remains, which the writer often visited in past years and which were known to him as early as the year 1849.

At the extremity of a cape extending from the south side far into the lower one of these lakes is a curious and prominent mound. Its longest diameter is about 7 rods, its shortest 5. Its summit is about 12 feet above the level of the lake and is about 8 feet above the low neck of land that connects it with the wider and higher part of the cape. It is a natural mound but seems to have been anciently occupied, for the usual relics have been found there in great abundance. Extending across this cape for 20 rods along the northern brink of a plateau that rises about 12 rods in the rear of this mound was formerly an eastern breastwork, traces of which were visible in 1870 when I first examined it. Some distance south of this and extending nearly from shore to shore across the cape was another breastwork. Several acres were embraced within these earthworks and the two shores of the lake. Here much pottery and many stone utensils have been found. Between the northern shore of the lake and the main

street of the village, that runs north and south, and north of another principal street that runs east and west, is the garden owned by Dr Thomas Phillips, in which was a large artificial mound. In 1870 when examined by the writer, although frequent plowings had reduced its height, it was 4 or 5 feet high and 3 or 4 rods in diameter. It is said to have been 12 feet high when first seen. Then forest trees of centuries' growth stood upon it. This mound was excavated about 1822 and a large number of human skeletons exhumed; one of unusual size. Extending in a northwesterly direction from an extensive fire bed in the neighborhood of this mound, a distance of 60 rods or more on the east side of the lake, was an elevated strip of land as wide as the track of an ordinary turnpike. Traces of this ancient road are still visible. At various other places around Cassadaga and along the lake were caches and extensive fire beds or hearths, where charcoal and ashes are buried deep in the ground. Skeletons have been exhumed in many places and arrows, pottery and stone implements found in great profusion. It is said axes of iron have been found also.

According to T. Apoleon Cheney, the mound above mentioned in 1859 was 7 feet high and 30 feet in diameter. Forest trees 2 or 3 feet in diameter originally grew upon its summit. The map made by Cheney incorrectly locates the mound on the southeastern side of the two principal streets of the village.

Charlotte. The first settlers of Sinclairville found there numerous evidences that it was once the site of an old Indian town. The writer having always been a resident of this village is able to give, partly from his own observations and partly from various authentic statements made by the early settlers of the place, particularly by the writer's father who came to the place the first year of its settlement in 1810, when the earthworks were visible and relics abundant, an account of the remains of this ancient settlement when the first pioneers of the place came there. An earthwork extended westerly from where the Baptist church of Sinclairville now stands, a distance of about 45 rods parallel with the steep bank that forms the northern border of the plateau upon which the central portion of the village is situated and about 2½ rods distant from the bank. This earthwork was plainly visible the whole of the distance at the first settlement of the village. The first highway in the town ran between this earthwork and the bank. At some points the intrenchment was so near to it and so prominent as to force the traveled track into too narrow limits. Near the middle point in the line of this breastwork, and a little south of it, were large quantities of stone that had been charred and crumbled by fire. They were covered by the soil. On



5

Iroquois pottery vessels
1 Seneca pot with wide
pitcher nose; 3 Seneca pot
of modeling tool drawn fr
cup; 6 notched rim Seneca
period; 7 Erie pot showing

Plate 160



Iroquois pottery vessels, common but not usually recognized as Iroquoian.

1 Seneca pot with wide collar that does not overhang; 2 Erie pot with pitcher nose; 3 Seneca pot with all-over pattern; 4 Erie pot showing marks of modeling tool drawn from right to left and downward; 5 Seneca bowl or cup; 6 notched rim Seneca pot, common during the middle and late colonial period; 7 Erie pot showing scratching of modeling brush. Scale, about ⅕.

and in the vicinity of the hotel garden a great abundance of flint arrowheads, ornamental pipes, hatchets and other stone implements were found. The writer when a boy spent rainy days in successful searches for them and they are still occasionally found.

Commencing on the east side of Lester street near the town line and running thence many rods westerly parallel with the brink of the declivity that forms the southern boundary of the plateau upon which the principal part of the village is located and about 3 rods from the bank, was a similar breastwork. It extended westward along the brink of the hill to wet ground where it faded away. The principal fortification, however, was situated partly between these embankments. It was an extensive circular earthwork having a trench upon the outside. Within its earthen walls were inclosed the village green and the adjacent streets and village lots. It crossed Main street a little east of the brick store of R. E. Sheldon. It crossed Lester street a little north of a small rivulet and south of the Congregational church. Just west of Lester street was a gateway. The embankment crossed East avenue 8 or 10 rods off the village green. It passed over the site of the Methodist church, crossed Park street to a point south of the Baptist church and continued south to the starting point at Main street. The little brook that runs from the spring a little distance northeast of the Methodist church, crossing Main street at the Reid block, passed through the northern portion of the inclosure of this ancient fort. All parts of this embankment were visible when the village was first settled, except where there was a wet and level place in the northwestern part. The embankment when first seen was 4 feet high where it crossed Main street, and required some labor to level in the construction of Main street. Full-sized maple trees grew upon the earthworks.

Within the corporation upon a high bluff to the west that rises precipitously from Mill creek, opposite the foot of Main street, was once another earthwork. It is said to have been circular with an excavation or cache within from 12 to 15 feet deep and 8 feet across. The intrenchment, if it existed, has long since disappeared. Traces of the excavation remain. The description given of these works by T. Apoleon Cheney are not to be relied upon and his map is incorrect in many respects. There was no boulder of the character he mentions here. One-half of a mile or more to the west of the village there was once a large boulder with an artificial cavity cut in its upper surface, that had been evidently used by the aborigines for the purpose of pounding corn. This boulder was afterwards broken and used in building the railroad bridge over the Cassadaga near Moons station.

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At other points in Charlotte were ash heaps, caches and other evidences of an ancient occupation. Between the forks of a small stream on lot 53, upon the farm of John Ames, are two large ash heaps which were examined by the writer. The larger was 42 feet in diameter and had a depth of 3 feet of burned soil and stone the smaller was 120 feet east of the larger and was 26 feet in diameter.

Gerry. In Gerry aboriginal remains are more numerous and important than in any other town in the county. Beginning in the extreme northern part one-half of a mile south of those described at Sinclairville, upon the eastern portion of the farm of George Dingley near the east line of lot 48, were many caches.

One-half of a mile south of the southern boundary of the village of Sinclairville upon lot 47 and upon lands of B. Q. Hanison and the late B. F. Dennison, was a circular intrenchment inclosing several acres; within or near this earthwork many human skeletons and a large quantity of arrowheads and implements of stone were found at different times. One hundred feet of the eastern portion of this old intrenchment a few years ago was still plainly visible. The old Chautauqua road ran east and west through this earthwork.

Seventy years ago[1] or more, as many as fifty human skeletons were disinterred from two pits located not far apart, near to, and northeast of, this intrenchment. All the bodies seem to have been buried at the same time and thrown together in great confusion.

About 130 rods northeast of this intrenchment was an ancient burial ground well known to the pioneers, where many bodies seem to have been regularly interred. So slightly were the dead sepulchred here that while the ground was still covered with woods skulls and other bones were sometimes discovered partly above the surface of the ground. These grim relics so awakened the superstitions of the early settlers as to have given rise to startling stories of ghosts and murdered pioneers. About 40 or 45 years ago Mr. M. Henderson, W. Putnam, the writer and others were present when twenty-five skeletons were disinterred. They were buried regularly in a sitting position in two parallel rows, the skeletons in each row partly facing the skeletons of the other row, but alternating so that the leg bones of each skeleton extended along by the side of the same bones in the skeleton in the opposite row. The place of burial is located on the north side and some distance from the old Chautautqua road on lands formerly owned by James Case on lot 47.

[1] This was written about 1890.

Two hundred feet east of this old intrenchment on lot 47, and 65 feet south of the Old Chautauqua road, where once was a grove of maple trees, when the field was plowed for the first time after the grove had been cut down, in a low mound were discovered a great quantity of human bones. This mound was opened May 25, 1887 in the presence of the writer, Richard Reed, Dr Frank Smith, W. T. Dennison and others. The mound was 12 feet in diameter north and south and 10 feet east and west. Its top was 4 feet higher than the ground around it. An excavation seems to have been originally made from 2 to 4 feet deep into which the skeletons were promiscuously thrown. The ground in which they lay was a dark loam and slightly descending. The skeletons were mingled together without order, evidencing the haste in which they were gathered to their final rest. The skulls lay mostly on the outside of the other bones. The thigh and hip bones were chiefly in the center. The skulls were poorly preserved. The teeth often indicated that they had decayed while the owner was living. These bones were covered with not more than 8 inches of earth and were generally so preserved as to indicate that not many centuries had elapsed since they were buried. Several femurs were as sound as those of an articulated skeleton. The skeletons seemed to be those of adults of both sexes and the bones were so mingled that the skeletons could not be counted. Doctor Smith carefully selected the femur bones (over one hundred) and placed them by themselves. From their number there was no doubt that more than fifty persons had been buried there. No arrows, pottery or other relics were found with them save the tooth of some large animal, probably a moose or an elk. A portion of the bones was photographed by W. F. Dunihue. Photographs are in the possession of the Buffalo Historical Society and the Chautauqua Society of History and Natural Science.

Perhaps the best preserved of these ancient earthworks in Gerry is the one situated 1½ miles southeast of the last described remains, being upon the northeast part of lot 38 and northwest part of lot 30, the line between the lots passing through the inclosure. It lies principally o n the farm of the late William H. Scott and a small part of it on that of G. Lane. It is mostly in the woods; only a small part has been disinterred by the plow. It has been carefully surveyed by the writer and was once examined by him in company with Cyrus Thomas and H. L. Reynolds of the Smithsonian Institution, Prof. S. G. Love and W. W. Henderson, president and secretary of The History and Natural Science Society, J. L. Bugbee and others.

It is triangular or kite-shaped, its eastern and western sides being about equal in length; the southern side is shorter and more curved.

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The fortification is distinct and plain through its whole extent, except where there are appearances of original openings. For a few rods which have been plowed, upon the eastern side, there are traces of the ditch visible. The top of the earthen wall is now 3 feet or more higher in places than in the bottom of its ditch. From the outside of the ditch to the inside of the embankment it averages 1 rod, two-thirds of this width being occupied by the embankment. The stump of a white pine tree, 4 feet in diameter, stands in the western ditch near the north angle of the earthwork. This tree apparently has had its growth since the ditch was dug; four hundred annual rings were counted and years must have elapsed since it ceased to grow. Upon the bank and in the ditch upon the south intrenchment many trees are growing. A pine tree that once stood upon the bank and was afterwards blown over showed from 230 to 260 rings. A small rivulet runs a distance of about 4 rods from the north angle of the fort. It is about 20 feet lower than the inclosure. Near this is a narrow opening in the walls, apparently designed for access to the brook. Another opening appears on the southwest side near the west angle. The land is level or slightly undulating, descending steeply about 20 feet to the east and south on the north side and rising to the west where, at a distance of 5 rods, the ground is 10 feet higher than the embankment. The area inclosed within the intrenchment is level, being a growth of maple and beech with cherry, cucumber and white ash. All over it are the decayed relics of an old pine forest. The north and south or longest diameter of this work is 28 rods. It includes an area of land of about 2 acres. In the center of this fortification is a singular bowl-shaped depression 4 rods in diameter; at its lowest point it is 5 feet lower than the adjacent grounds. Within this depression no trees are growing, except three beeches, the largest not more than 18 inches in diameter. Around the cavity are many trees of large growth. As yet there have been discovered no ashes or burned stones or other relics in this hollow. Some pottery and stone implements have been found along its eastern border, but as the ground here and in the vicinity is covered with woods, but few relics of this kind have been discovered.

On the lands of the late B. F. Dennison a little north of the middle of lot 46 in Gerry and about 22 rods east of the road from Sinclairville to Jamestown, not far from a little rivulet, was an oval earthwork 15 or 20 rods in diameter containing about an acre. Forty or fifty years ago 5 or 6 rods of the wall were very distinct, and the remainder easily traced. When the writer saw it about 5 rods only were traceable.

On lots 45 and 46 in Gerry are some remarkably large ash heaps, hearths and cinder beds. One was fully examined by the writer, W. W. Henderson, John T. Phelps and others in May 1887. It is on the eastern side of a small rivulet of cold water supplied by springs, which was once filled with trout. The stream runs from lot 46 to lot 45. This ash heap is 60 feet south of the center of the road running between these lots. Its north and south diameter is 44 feet; its west has been worn away. Its present diameter is 35 feet east and west. Its original diameter was probably 51 feet. It is composed of a dark siliceous earth thickly mixed with fragments of granite boulders, sometimes almost forming a solid mass of broken stone. Most of these stones were covered with a thick lampblack. They would sometimes crumble when crushed in the hand, showing the effect of fire. Mingled with these stones was the natural soil which is here very sandy and black. There were no ashes, but only sooty stones and sand. The soil in the vicinity of the cinder bed was yellow, sandy loam upon which thickly grew large, white pine trees. The cinder bed was grassed over and was of a darker material than the surrounding land. Its form was rounded and higher than the land around it. The bed was from 1 to 2 feet deep. Upon it stood a very large white pine stump much decayed, of a tree probably 5 feet in diameter, 3 feet above the ground. That this tree commenced its growth after the cinder bed was formed is evident. The deepest part of the bed was under its roots and the best specimens of burned stones were found beneath it. About 30 rods above this on the streamlet was a smaller but similar hearth; 25 rods farther up the rivulet was another cinder bed about 1 rod in diameter. Many arrows have been found on and in the vicinity of these ash heaps.

There was formerly an earthwork partly on the lands formerly owned by the late H. D. Gates and partly on the lands of Hiram Sears on lots 35 and 43. The northern boundary was about 40 rods south of the north line of these lots. In May 1878 no part of it was visible. It is said to have been oval and to have encompassed 7 acres. It included four springs within its circuit. When first seen the embankment was said to have been in places 4 or 5 feet high with pines and large oak trees upon it. An ornamental Indian pestle with a carved head upon the end and other Indian implements have been found here.

In the village of Gerry at different times ancient skeletons have been exhumed particularly near the house and upon the lot of Simon Steadman. William Henderson and myself witnessed the disinterment of one of these in 1878. The body was apparently buried in

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the vicinity of these ash heaps.
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its circuit. When first seen
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An ornamental Indian pestle w
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erent times ancient skeletons ha
ne house and upon the lot of Sir
and myself witnessed the disint
The body was apparently buried

a sitting position. Three other skeletons had been previously exhumed at this locality.

Earthwork at Almey's. Aboriginal relics in Gerry are mostly in the uplands that bound the Cassadaga valley upon its eastern side But few have been found along its western borders except on lo 60 at and near the hamlet of Towerville. A spur of elevated lan here juts out from the Ellery hills toward the Cassadaga. To the south of this promontory lies a pleasant valley through which flows a tributary of the Cassadaga, and from its base the plain that border the Cassadaga extends eastward. At the verge of this promontory are some of the most distinct and interesting evidences of a former occupation to be found in the county. These relics are located abou 2 miles directly southwest from the ash heaps. They are to be seen in a pleasant grove upon the lands of John E. Almey. They were surveyed by the writer and R. Reed in 1891. At least 50 feet above the valley and inclosing one-fourth of an acre of the extreme point o this elevated spur is an earthwork in the form of a letter **C**, the open side being toward the east brink of the promontory and facing the valley of the Cassadaga. This steep high bank seems to have been sufficient to afford protection for that side of the fortified space, a there is no sign of an earthwork along the brow of the eminence. A depression in the land extends along the south side and a ravine along the north side to the face of the declivity. To the west the land gently rises for a long distance. The embankment extending along the depression south of it, viewed from the high land across the depression, makes a conspicuous appearance. Here for 70 feet it is 4 or 5 feet high. The remainder of the way along the west side for 150 feet, with the exception of 30 feet recently worn away by the plow, the embankment has a height of from 2 to 4 feet. Thus far a well-marked ditch extends around the outside, at some points 3 feet deep. At places on the inside there are slight appearances of a ditch For 64 feet along the north side of the earthwork the ditch and wal have disappeared; for the remainder of the way to the east bank of the inclosure (70 feet) the ditch is plain to be seen. A cross section at one point showed the embankment to have been 13 feet wide and 3 feet high, and the ditch 5 feet wide and 2 feet deep. The embankment is usually much less in width. In the inclosure is a grove of maple trees, among which some pines formerly grew. A pine 5½ feet in diameter and over 200 feet in height a few years ago grew without the inclosure but partly within the ditch, near its southeastern termination. Trees and some old pine stumps stand upon the bank and in the ditch. One old decayed stump was 4½ feet in

one point within the inclosure a quantity of red earth one and small fragments of pottery were found, indi- :s had been kept there. At another point was found a solid bed of ancient ashes, several feet across and in thickness. The lapse of time since these ashes were :ived them of all alkaline qualities. Pieces of pottery : this point as well as at others within the earthwork. made of clay or marl and is of a dark reddish color vithin. The outside is sometimes nicely ornamented y molded in some kind of a coarse cloth, for the omewhat regular lines with cross depressions upon the nd.

d seventy feet to the southwest across the depression this earthwork, upon ground 12 feet higher and close n brink of the promontory, is a small, perfectly pre- ork. Its form is an irregular circle. It is distinct and le distance except for 18 feet in the northwest part, inly a gateway. The ditch upon the outside is well places deep. The embankment is very distinct and in early 4 feet high. Trees and large decayed stumps ank and in the ditch.

100 rods south of this fort, upon a level place partly f Halsey Moon, but principally on that of Sil. Tower, ive circular earthwork 22 rods in diameter east and ds north and south. When the locality was first set- tinct and plain for its whole circumference. As Wil- w it in about 1850 the walls in some places were 2 feet he writer visited the place in October 1891 there were aces of it. An apple tree had been planted upon one of the wall that remained unobliterated. Extend- t of this earthwork from the marshy and higher land way to the west in Elley was a ditch about 45 rods William Tower first saw this ditch it was from 18 et deep and visible the whole distance but now there a few feet of it. Probably this ditch was used to to this fortification.

two forts and nearest the largest one on William Moon's farm is a singular and isolated knoll of an cal shape, 20 rods long, 15 rods wide and 30 feet atural formation. Around it and in and around these ve been found relics of stone and pottery, and also arths. William Tower has a variety of interesting

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At another point was found a
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Indian relics, among them a finely shaped and finished gorget perforated at the ends, intended perhaps for a neck ornament.

Harmony. In July 1887, W. W. Henderson, Prof. S. G. Love and the writer examined an artificial mound west of the road leading from Stowe to Ashville on the farm then owned by L. B. Warner of Harmony. It was 40 feet long, 35 feet wide and 5 feet high. Not far from this mound upon the farm of A. C. Green in Harmony, a flint knife, a very fine piece of Indian workmanship, was found a few years ago. It was lance-shaped at both ends, 12 inches long, 3 inches wide and 1½ inches thick. It was deposited in the museum of the Jamestown Union School.

"M. P. Chase about the year 1867 residing at Chautauqua on the line of Harmony near Steadman, while scraping dirt from the road near his house uncovered a large trench filled with human bones which were much decayed. Their condition and rapid disintegration after exposure to the air and the fact that the ground had never been disturbed since the land was cleared by Wm. Chase's father 47 years before, prove that the remains had been there a long time. The trench appeared to be 6 feet wide and 10 or 12 feet long and the number of persons buried seem to be about fifty. No weapons or relics of any kind were seen, but some charcoal or cinders were mixed with the bones. The trench was about 2 miles from Chautauqua and appeared originally to have been about 3 feet deep." This is perhaps referred to in the Annual Report of the Bureau of Ethnology, 1890–91 (p. 506) in these words: "Bone Pit at Steadman. A so-called 'Indian pit' was dug into while making some road improvements, near this place. Twenty or twenty-five bodies were uncovered which lay in rows. There were no relics of an aboriginal character."[1] This may not be the same as that above mentioned by William Chase.

Annual Report of the Bureau of Ethnology, 1890–91 (p. 506) "Three miles from the Chautauqua Assembly grounds at a place called Whitney's Landing are two mounds situated upon the Whitney farm, about 60 rods apart. The land upon which they are situated rises considerably above the lake. No. 1 is 25 feet in diameter and 4 feet high. At a depth of 18 inches were found very large flat stones, placed side by side and forming a perfectly level layer. The trench was carried down to the original surface of the ground, but nothing else was found, except some fragments of human bone and the broken parts of an unbaked clay pipe."

"It was afterwards ascertained from Wm. A. W. Whitney that this mound had been partly explored 40 years previous, which exploration resulted in finding one plain stone pipe, 17 spearheads of the long or knifelike type and human bones. An old pine tree 2 feet in diameter then stood directly on top of the mound."

"The second mound measured 38 by 31 feet in diameter. It was opened at the same time as no. 1 by the same party with no other

[1] From the Jamestown Journal, September 30, 1899.

result than that they came upon a layer of ashes at a shallow depth. A little digging was done in this mound and a biperforated stone gorget found."

An Old Burying Ground

An important discovery was made at Chautauqua, Monday. It was the fact that the famous assembly grounds, or a part of them at least, are located on the old-time burying grounds. The discovery was made by workmen who were excavating for a cellar under the cottage of Miss Eddy, which is located on the lake front, not far from the pier, in the direction of the J. & L. E. railway station. While digging in the soft earth a human skull was produced; then came other parts of a body; and immediately thereafter were found other skulls and human bones, until before the completion of the work at least a dozen skeletons had been unearthed, the bodies having apparently been buried in one mammoth grave. Few of the bones other than the skulls were in a good state of preservation. Four of the skulls, however, were well preserved and six or eight others only partially decomposed. (*Jamestown Journal*)

At Griffiths Point there was a mound in a level meadow about 60 rods east of the Griffith House and 80 rods from the lake. We found this mound 35 feet in diameter and 4 feet higher than the grassy ground around it. In the meadow land, southwest of this mound and distant about 100 feet, there had been a larger mound which had been quite recently removed. A few bones were found, among them the skull probably of a bear. The circular place that apparently was occupied by the mound was 60 feet in diameter when Mr Bugbee saw it a few days before 1875, and twice as high as the first mound. West of the most westerly of these mounds a modern driveway then extended north and south from the lake road to the Griffith House. Ten feet west of this driveway and parallel with it extended a belt of land, distinctly higher than the land on either side of it, and about the width of the ordinary travelled part of a country turnpike. It extended unbroken for about 25 rods toward the lake road. For about 10 rods it was obscure or indistinct when it appeared again extending as before toward the higher land easterly of the lake. In the vicinity of these mounds and along the shore of the lake many arrowheads have been found.

Ellicott.[1] "There are two Indian mounds in the town (Ellicott) filled with human bones, one at Dexterville (city of Jamestown) and the other on the farm owned by Jehial Tiffany. At the latter place are traces of a fortification."

The Annual Report of the U. S. Bureau of Ethnology, says on page 506:

[1] From Young's History of Chautauqua County, p. 620.

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Ground

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S. Bureau of Ethnology, says

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"Two mounds formerly stood upon the land of Albert Tiffany 1½ miles from Jamestown on the Ellington road, but have been removed and nothing reliable is known in regard to their contents. While examining the site of these mounds a stone gorget similar to that found at Whitney's landing was obtained."

The remains of an ancient earthwork near Talcoms, which followed the bank of the stream at this place, were examined. It was semicircular in form, in length following the curve, being about 540 feet. It was utilized in the construction of the Mill race (now abandoned) and was built 3 or 4 feet higher than it was originally and somewhat lengthened.

Ellery. On the east side of Chautauqua lake are many aboriginal relics which were examined by the writer and J. L. Bugbee of Stockton in October 1875. At Long Point an abundance of arrowheads and Indian implements were found in former years.

At Bemus Point near the cleared fields and improvements that were undoubtedly made by the Senecas before the settlement of the county, were more ancient relics. At the line between the Fellow and Hazeltine farms and east of the lake road was an artificial mound which we found to be 30 feet across and 4 or 5 feet high. Eighty feet east of this was another mound fully as large.

These mounds were described in Thomas's report to the Bureau of Ethnology to the Smithsonian Institution as situated about 100 rods from the north shore of Chautauqua lake. Mound 1, 6 feet high and 39 feet in diameter, was explored with the following results: fragments of decayed human bones, some copper beads, a fragment of a copper ornament and scraps of mica were found at a depth of 3½ feet, an arrowhead was found 2 feet below the surface; animal bones with a piece of decayed wood at from 2 to 3 feet. The mound was explored to the natural surface without any further results. Mound 2, about 4 rods directly east of No. 1, measured 55 feet in diameter and 5 feet high. William Fenton states that seven or eight years ago this mound was explored but nothing of interest was found in it.

Faint traces of an aboriginal embankment was noticed upon the high land back from this point (Long Point) overlooking the lake.

Doctor Larkin says fifty years ago (1830) that he was informed by a white settler at Dewittville that vast quantities of relics had been found in that vicinity — that while a cellar was being dug there, about a peck of arrowheads was exhumed, all of which were 4 feet below the surface.

Fluvanna. A little distance west of Fluvanna about one-half of a mile from the lake within the bounds of the highway running north

and south on the town line between Ellery and Ellicott and about 60 rods north of the lake road, on the top of a ridge of land is a (natural?) mound once used by the aborigines. Part of it has been moved away to improve the road. There many human bones have been found. It was large and conspicuous. When examined by William Bugbee and the writer in 1875, it was 55 feet in diameter at the base, 10 feet high, and quite flat on top where it was 25 feet in diameter. Before it was disturbed its dimensions were greater. The evidences show that it had been used by three races: first by the aborigines; a human skeleton and two knives bearing French inscriptions which had been buried there show that it had been used by the French; the bones of a white person better preserved show that it was the burial place of some family subsequent to the settlement.

Carroll. At Fewsburg in Carroll on the south side of Frew's run where John Frew located his sawmill, William Reid Jones when grading ground for his dwelling uncovered the bones of several persons, which seemed to have been interred in a sitting position. With them were found flint arrowheads, stone pipes and two stone axes.

At Fentonville evidences have been found, and not far from the village human bones have been found in great abundance. A skeleton of a man was found under a tree.

Chemung County

General occupation. At the opening of the colonial period Chemung county seems to have been occupied by one of the eastern branches of the Iroquois stock. There were perhaps the Andaste and later Gachoi or Cachoeos,[1] the names appearing on some Dutch maps of 1614 and 1616. They were apparently at war with some of the members of the Iroquois conferederacy, probably the Seneca. On Champlain's map appears a record of "Carintouanis, a nation of the south of the Antouhonrons in a very beautiful and rich country where they are strongly lodged and are friends with all the other nations except the Antouhonrons, from whom they are only three days distant." General Clark thought Spanish hill, south of Waverly, was their stronghold. The name "Antouhonrons" is not dissimilar from "Sonontouan," one of the recognized names for the Seneca. Later the Seneca took possession of this region and some of their larger settlements were along the Chemung river and Newtown creek. It is likely they claimed the region by virtue of conquest. Through the work of Ward E. Bryan and L. D. Shoemaker

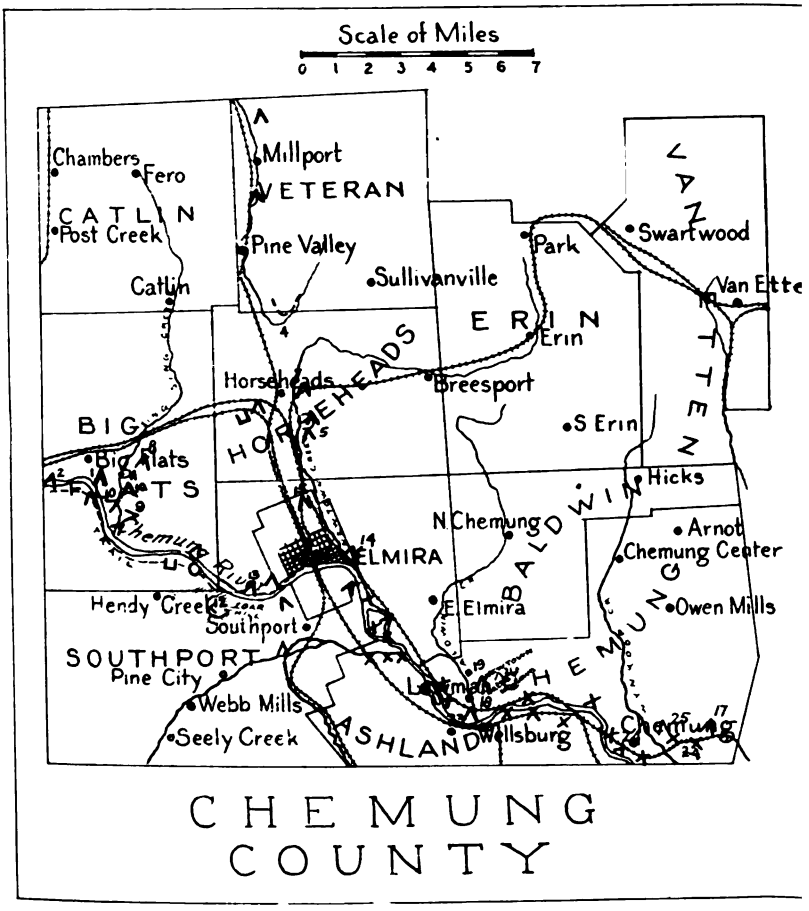
[1] The Cayuga.

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Plate 161



more than fifty sites have been located in the county and accurately charted. The collections acquired by these investigators are now the property of the State Museum.

Some of the first struggles of the Senecas with General Sullivan's troops occurred in this county and it is only necessary to mention the Battle of Newtown to bring to mind the incidents of the Revolutionary period.

A trail led northward by Newtown creek, through Horseheads to Catherine's creek, thence along the shore of Seneca lake and northwestwardly into the heart of the Seneca country.

List of Sites

1 Runonvea was a village at Big Flats burned in 1779. Ward E. Bryan of Elmira says that arrowheads may be found in numbers on a rise of ground to the southeast of this site.

2 Small camp site just below East Corning station on the Erie Railroad. A trail follows the east side of the river through this point and scattered flints are found throughout its length.

3 Site on the Weston farm about 3 miles north of Horseheads and on the ridges on both sides of Catherine's creek. The principal evidences are found at the bend of the creek as it turns north toward Seneca lake. Pottery and arrowheads. A trail followed the ridge.

4 Large site on Arnot estate a mile southeast of Horseheads, the present site of the village waterworks. Graves have been found here in which were glass beads. There is also an earlier occupation evidenced by cylindrical pestles and broken gorgets. Arrowheads and pottery are common on the site. A trail followed the east bank of the stream.

5 On Latta brook road near the end of the ridge and 2 miles south of Horseheads was an extensive site with fine relics and numerous pestles, celts and flint points. The site is on the Elisha Day farm. There is much broken pottery in the gravelly soil. W. E. Bryan, who furnished this information, says he believes there was a cache of turtle backs here as he picked up from two to five in a radius of 20 square feet at each plowing.

6 Small village site at the confluence of a small creek and Catherine's creek just above Millport on the Charles Sleeper farm. Mr Sleeper has a number of fine relics from the place.

7 Site west of tail and east of the Northern Central Railroad one-fourth of a mile north of Horseheads, on the Marshall farm. The trail crossed the creek at this point.

nt site covering about an acre of land on the west side of
g at the Big Flats suspension bridge. The village site
l plateau above the river, affording a good vantage point.
e points to a continued occupation. Club heads, celts,
and pottery have been found here. The Chemung face
und on this cite. (See plate 11, fig. 1.)

southeast of Big Flats and northwest of the mouth of
eek is a site with pottery, pestles and articles of stone.

village site between Big Flats and the mouth of Sing
ear the last and much like it. The trail ended here and
been reported. The occupation all along the river seems
on of sites. At this point are found many net sinkers,
es, celts, triangular points, pottery etc. Mr Bryan found
nd deposits of flint flakes.

site on an eminence above and along Sing Sing creek
mile above its mouth on the east side. An old creamery
the creek. Mr Bryan thinks the site may have been
tified camp or village and reports arrow points, celts,
es and hammerstones.

n an eminence above the Chemung on the south side.
is locally known as Zoar Hill. This work has been
d figured by several writers. Thomas Maxwell's plan
are in Schoolcraft's "North American Indians." He
s 3 miles west of Elmira and south of Chemung river
270 feet long, 3 to 4 feet high and 6 to 9 wide on top.
a row of holes 2 feet apart east of the bank, with a
2 feet in the center for a gateway. A larger post was on
this, which is a frequent thing. Professor Horsford
for Mr Squier. There was a bank about 200 feet
broad at the base and 3½ feet high. A double line
out a foot deep extended along the top. There were
lel furrows inside the bank partially crossing the area.
ge washed on one side by the Chemung (Squier, p. 53–
ryan found burned stone, animal bones, slate discs or
," arrow points and other relics at the edge of the
wall of the fort has been destroyed.

l site with graves is west of the Zoar Hill site and nearly
old Mountain House. Pottery and arrows are found.

alohalla was a village of twenty houses burned in 1779.
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Chemung on the south side
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in Elmira, one near the Rathbun house and one
(Towner, p. 24). Graves were found in Elmira
tions for the Kennedy Valve Company's plant we

15 Small site on east bank of Newtown creek
way House. Flints and pestles were found.

16 A small village called Middletown betwe
Kanawlohalla was burned in 1779. Graves have
by spring freshets. The site is on the Luther Jen

17 Chemung, a town burned in 1779, having 50
the left or north bank of the Chemung west of
3 miles from the present Chemung village. Old
same bank one-half of a mile above the present v
There are evidences of occupation on both bar
the bridge.

18 A small and new village on both sides of B
northeast of the battlefield was burned in 1779
was near this. These sites are on the west side o
Wellsburg and Lowmans. Mr Bryan found cra
stone, arrow points, pot fragments, broken pi
metal. On nearly all sites along the river are
than one occupation.

19 Newtown on the left bank of the Chemung
Elmira and 1 mile above the battlefield of Aug
battle was near Lowmans. Newtown was made
captives and Seneca who later removed to Mount

20 Site across the river opposite Newtown.
seems extensive and the relics are numerous.

21 Site on A. D. Symond's farm; celts and
A small village near the river on one of its trib
above the Newtown battlefield (Sullivan, p. 127).

22 On the Nichols farm opposite the Sullivan
siderable site with many relics, but there are
traces south of Elmira than north. Large site o
a short distance from railroad bridge. The site
suitable for a stronghold. Pottery, celts, arro
stones etc. are found.

23 A village southwest of Lowmans and anoth
the river. There are scattered evidences of oc
river on the west side.

24 Camps on both sides of the river at Chem

25 Camp and a village north of the river, ne

Many other village and camp sites are indicated on the map and are from locations kindly furnished by L. D. Shoemaker and Ward E. Bryan, both of Elmira. These gentlemen are the two chief authorities on aboriginal localities in Chemung county.

Chenango County

List of Sites

1 A horseshoe-shaped gravel bank, 4 miles north of Sherburne and 1 mile west of Handsome brook with a curious extension seems a natural formation, but arrowheads occur in the vicinity (Hatch, p. 74).

2 West of the river and opposite Sherburne were four or five open caches, close together and 4 to 6 feet deep and wide. In a field north were stone chisels, pestles, axes and arrowheads (Hatch, p. 74). This was 1½ miles northwest of the village.

3 In the present burial ground on the south boundary of Norwich were human bones in great abundance, the skeletons buried nearly upright, on the farm of C. M. Rouse.

4 Near the residence of the late Abel Chandler in Norwich was a mound much like western ones (Randall, p. 13).

5 Village and burial site at the Indian fields a mile below the creek bridge at Norwich. (This place was a favorite Indian residence, and was also the plain now occupied by the village of Norwich.) Large flint points have been found near that village and stone axes on the Unadilla (Child, Directory, 1869–70). Mr Squier quotes from Clinton: "There is also a place at Norwich on a high bank of the river called the Castle, where the Indians lived at the period of our settlement of the country, and where some vestiges of a fortification appear, but in all probability of much more modern date than those at Oxford" (Squier, p. 47). Randall says there was a recent work on the east side of the river a mile south of Norwich called the Castle, much frequented by the Indians when the whites came. There were traces of Indian villages near this (Hist. Mag., 1873, p. 13). "On the west of the river," he adds, "opposite this, was a space of a mile from north to south much frequented and called the Indian fields." The Castle site is on the J. J. Slater farm on the east bank of the Chenango.

6 Skeletons were found in digging the Chenango canal 4 miles north of Oxford, near the old Gates Tavern or Halfway House (Hist. Mag., 1873, p. 13). West side of the river. Along the river are found earthenware, drills, arrowheads and flakes.

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ıoemaker and Ward E.
e the two chief author-
ıty.

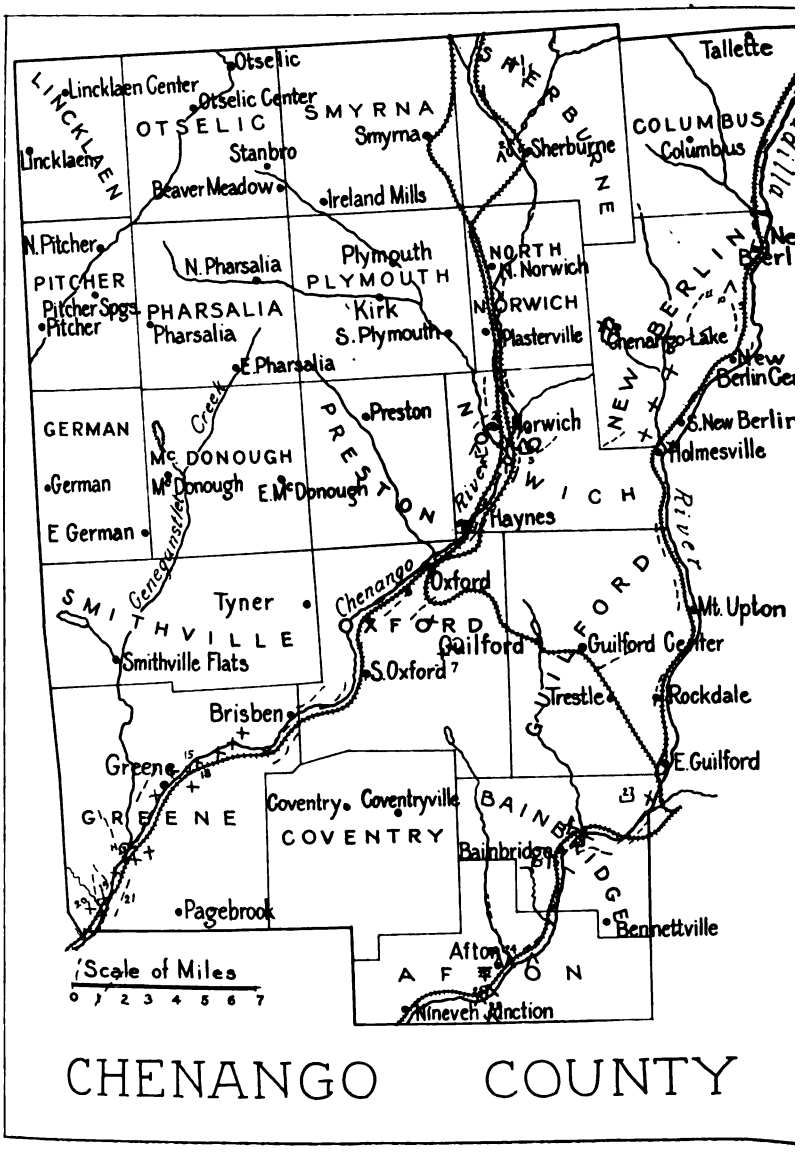
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Plate 162



CHENANGO COUNTY

7 On the east side of the Chenango 4 miles south of Oxford on Padget's brook, were twenty-five distinct old embankments adjacent to one another. There were also traces of graves nearby, lined above and below with cobblestones. The upper stratum of these had fallen in (Hist. Mag., 1873, p. 13). R. E. Van Valkenburg of Mount Upton believes there are evidences of a fort at this site.

8 Burial mound in the township of Greene about 2 miles below the bridge and 30 rods from the river near the mouth of Geneganstlet creek. The mound was circular and was originally 6 feet high and 40 feet in diameter. It was opened in 1829 and human bones were found. Beneath them were others which had been burned. It was not an orderly burial, and "the bones crumbled on being exposed." In one part were about two hundred yellow and black jasper arrowheads, and sixty more in another place. "Also a silver band or ring about 2 inches in diameter, wide but thin and with what appeared to be the remains of a reed pipe within it. A number of stone gouges or chisels of different shapes, and a piece of mica cut in the form of a heart, the border much decayed and the laminae separated, were also discovered" (Wilkinson). This account is quoted by many. Much of the material discovered was a secondary and intrusive burial. The location at present is on lot 45 in the Chenango triangle on the L. A. Cross farm.

9 "In the town of New Berlin adjacent to the Indian fields of Otsego county, gun barrels, stone tomahawks and human skeletons have been plowed up." This was on the farm of Mr Scribner. (Child, Directory, 1869-70.)

10 An early village site on the Marvin farm in New Berlin is reported by C. A. Holmes.

11 An early village site on the Silver Lake farm in New Berlin is reported by Mr Holmes.

12 Early site on the Thayer farm in New Berlin.

13 Early site on the Beardsley farm in New Berlin.

14 Conihunto was 4 miles below Unadilla on the west side of the Susquehanna, and was also called Gunnygunter. It was destroyed in 1778 (Sullivan, p. 23). There was also a Mohawk village farther down but north of Ouquaga, called Wauteghe, and suggesting the later Otego.

15 A few hut rings 1½ miles north of Greene were on the river bank. Relics all the way to Greene.

16 Village site on the Fred B. Skinner farm in Greene. Arrow and spear points and broken pottery are found.

17 Burial site near Norwich on the Old York Knoll.

18 A camp site about three-fourths of a mile north of Greene and on a hill near the east side of the river, is reported by Mr Hildburgh.

19 Fishing camps along the river between Greene and Chenango Forks.

20 F. H. Williams, of Greene, writes, "There were many camp sites here, about twenty within 5 miles of Greene. In fact at any place along the Chenango river where a spring is or was found, you can be fairly sure of a camp site." He describes a very large one on Indian brook, 2½ miles south of Greene on the west side of the river. The site is a mile from the Chenango, and there are about seventy hut rings arranged in three groups. Those farthest down the brook are in two lines, 8 to 10 feet apart in the rows. The next group is similar and about 30 rods away. These might be long houses quite as well. The third is in the form of a crescent, and there are also a few scattered fireplaces. The relics are early.

21 There is a large camp at Stillwater flats, about 5 miles south of Greene on the east bank of the river.

22 Village site on lot 60, Afton.

23 Village site on lot 62, Afton.

24 Village site on lot 58, Afton. The site is on the Harris W. Holmes farm. Soapstone pottery is found.

25 A village site on the S. G. Caswell, O. G. Brazer and T. Makley farms on lot 59, Afton.

26 Village site on the H. W. Holmes farm on lot 57, Afton.

27 Stone graves are reported by Marshall B. Hill on lot 85, Afton.

28 Burial site reported by Miss J. Juliand, on the Humphrey farm in Bainbridge.

29 A village site on the Terrace Hill farm in Bainbridge.

Clinton County

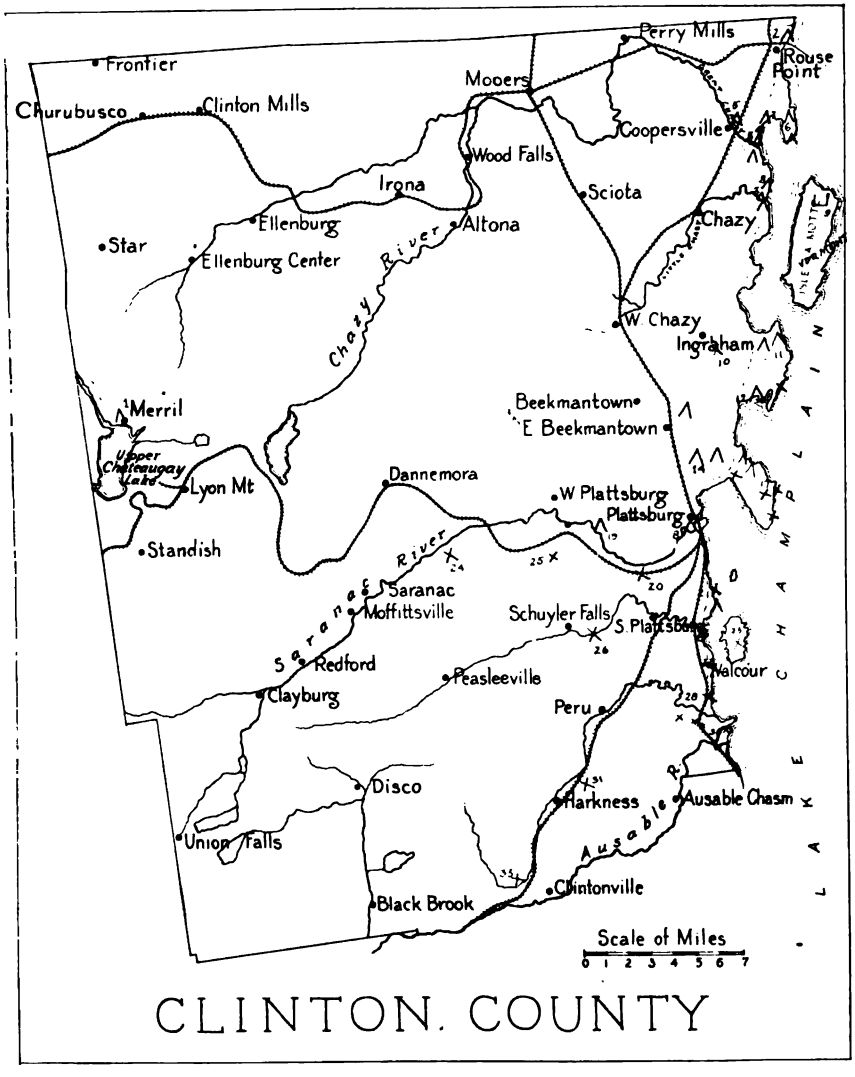
List of Sites

1 Village site on west side of the county on the south line of Ellenburg at Merrill's north end of Upper Chateaugay lake, east side of the outlet.

2 Village site on the east shore of Lake Champlain north of Rouses Point.

3 Village site at mouth of the Little Chazy river in the town of Champlain.

Plate 163



CLINTON. COUNTY

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on the northeast

20 Camp

21 Camp

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22 Camp site

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23 A camp

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24 A camp

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25 Camp site

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26 Camp site

Salmon river a

4 Village site at mouth of the Great Chazy river in the town of Champlain.

5 Village site at Coopersville in the same town and east of Chazy river.

6 Two village sites on the lake shore at the commencement and end of Pointe au Fer.

7 Village site in the same town and on the lake shore; four sites from King's bay to the south line of the town.

8 Village site near the north line of Chazy on the lake shore and north of Little Chazy river.

9 Burial site at the north end of Isle La Motte on the Hill property.

10 Village site in Beekmantown and near the north line.

11 Two sites on the south shore of Monty's bay.

12 Village site in the same town, on the north shore of Tredwell's bay.

13 Village site north of East Beekmantown.

14 Village site in town of Plattsburg near the north line.

15 A site west of Woodruff pond and two sites between it and the lake.

16 Four village or camp sites at the head of Cumberland bay in the same town.

17 A camp site about half way along the outside shore of Cumberland head.

18 Village site in the city of Plattsburg on the shore north of the Saranac river.

19 Village site in the same town a mile east of Morrisonville and on the northeast side of Saranac river.

20 Camp site at Fredenburg falls south of the river.

21 Camp site on the lake shore in the same town is south of a small creek and north of Bluff point. There are also two sites between Bluff point and a stream on the south.

22 Camp site is on the lake shore on a small creek at the south line of the town of Plattsburg.

23 A camp site on the west shore of Valcour island south of a projecting point.

24 A camp site in the town of Saranac near the east line. It is south of the Saranac river, and 1½ miles southwest of Elsinore.

25 Camp site in Schuyler Falls, 1½ miles southwest of Morrisonville.

26 Camp site near the south line of Schuyler Falls and on the Salmon river a mile east of the village of Schuyler Falls.

27 Camp site on the lake shore at Port Jackson in Peru.

28 Camp site in the same town near the mouth of Little Ausable river.

29 Three camp sites between this and Bagg's on the Ausable.

30 Camp site in Peru on the end of Ausable point.

31 Camp site in Ausable near the north line on the Little Ausable, one-half of a mile north of Harkness.

32 Camp site in the same town southeast of Ausable station, a mile north of the river and 2 miles east of the railroad. Another south of Arnold hill.

33 Workshop of one-half of an acre a mile north of the Little Ausable, and about 4 miles from both Ausable Forks and Clintonville. Flint chips are abundant, with a few arrowheads.

There is a site on the west shore of North Hero island, Vt., at the south end and opposite Long point. Another is toward the south end of South Hero on the west shore and northeast of Providence island. Some remarkable relics have been found on the northeast shore of the lake. Nearly all these localities were recorded by Dr D. S. Kellogg.

Columbia County

Columbia county is in the Mahikan territory and the title was early extinguished. There were some small villages of river Indians, but little has been reported. There were Indians living in the county as late as 1855. Later they were removed to the Stockbridge settlement in Wisconsin.

List of Sites

1 "A spring on the side of Mount Tom in Copake was called Taghkanick, and was a favorite Indian resort."

2 "A place called by the natives 'Wawanaquassick,' where the heaps of stone lie, being near the head of a certain kill or creek called Nanapenahakan, which comes out of a marsh lying near the said hills of the said heaps of stones, upon which the Indians throw one upon another as they pass by, from an ancient custom among them." (Doc. Hist. N. Y., 3:693). This was on the north line of Livingston Manor and on the north line of Taghkanick also. Such heaps have been found elsewhere in New England and in New York.

3 Camp sites near Stuyvesant.

4 S. L. Frey reported a village site at Catskill station.

5 A camp in Lapeer south of Mr Genung's house on a bluff near and overlooking Big brook (Goodwin, p. 259).



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County

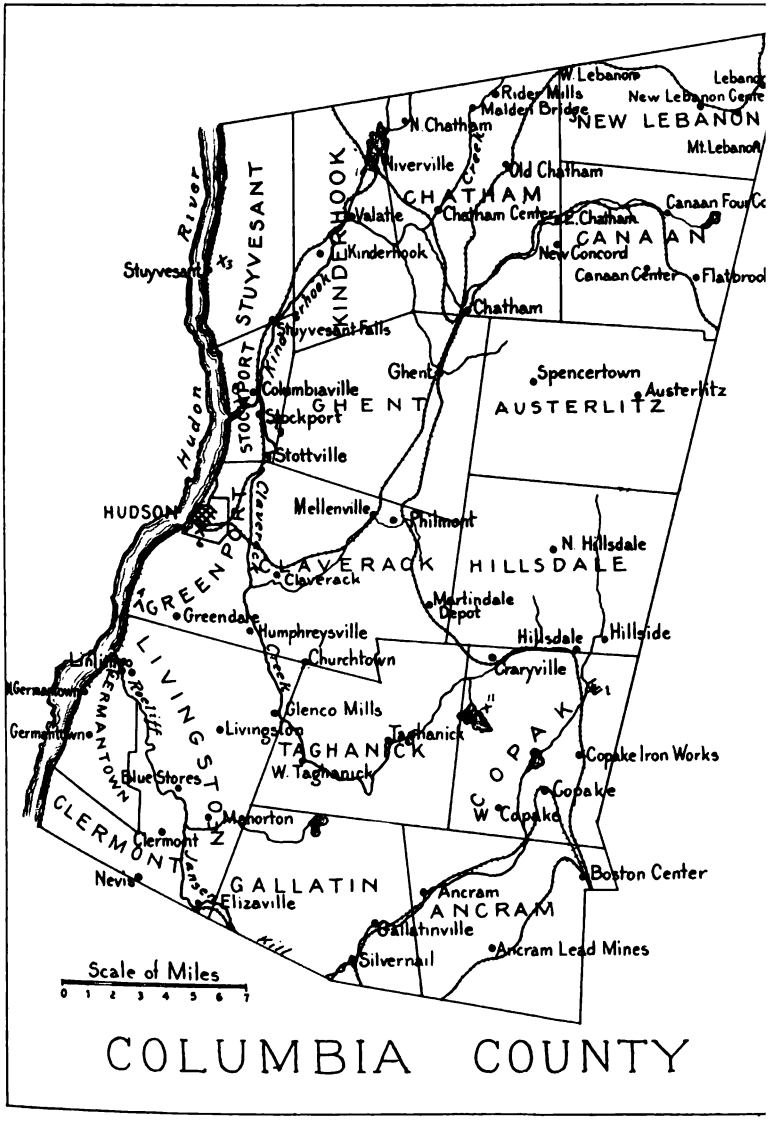
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Plate 164



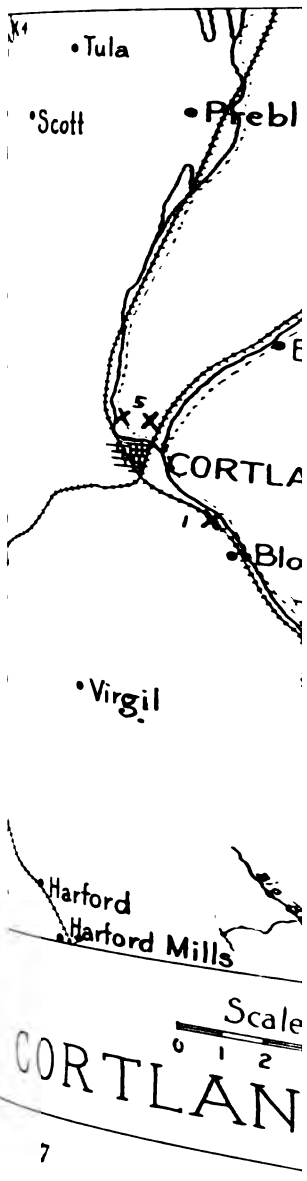
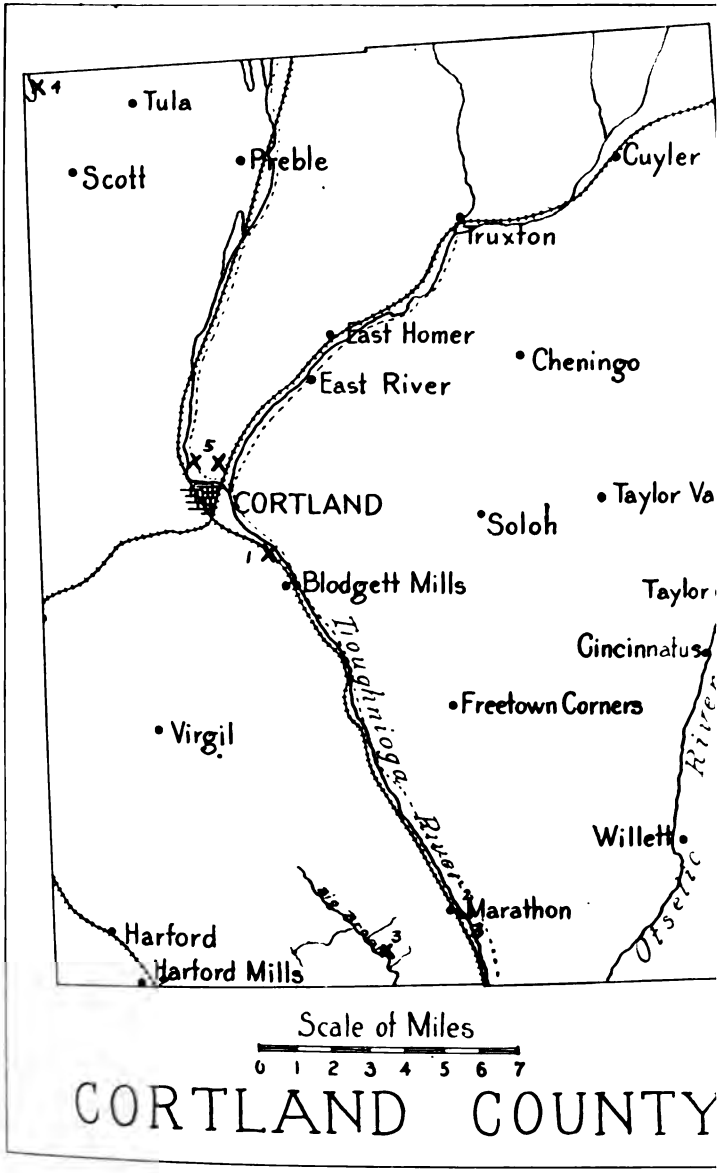

Tula
Scott
Preble
CORTLA
Blo
Virgil
Harford
Harford Mills
Scale
0 1 2
CORTLAN

Plate 165


Tula
Scott
Preble
Cuyler
Truxton
East Homer
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East River
CORTLAND
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Blodgett Mills
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Tioughnioga River
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Willett
Marathon
Harford
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0 1 2 3 4 5 6 7
CORTLAND COUNTY

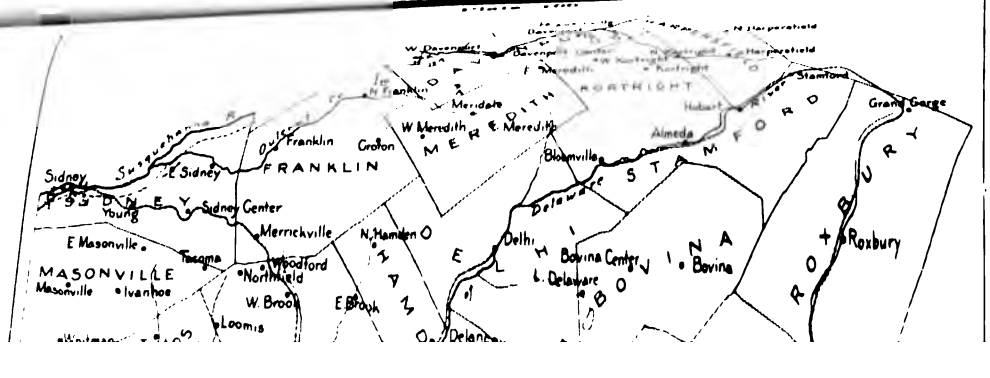
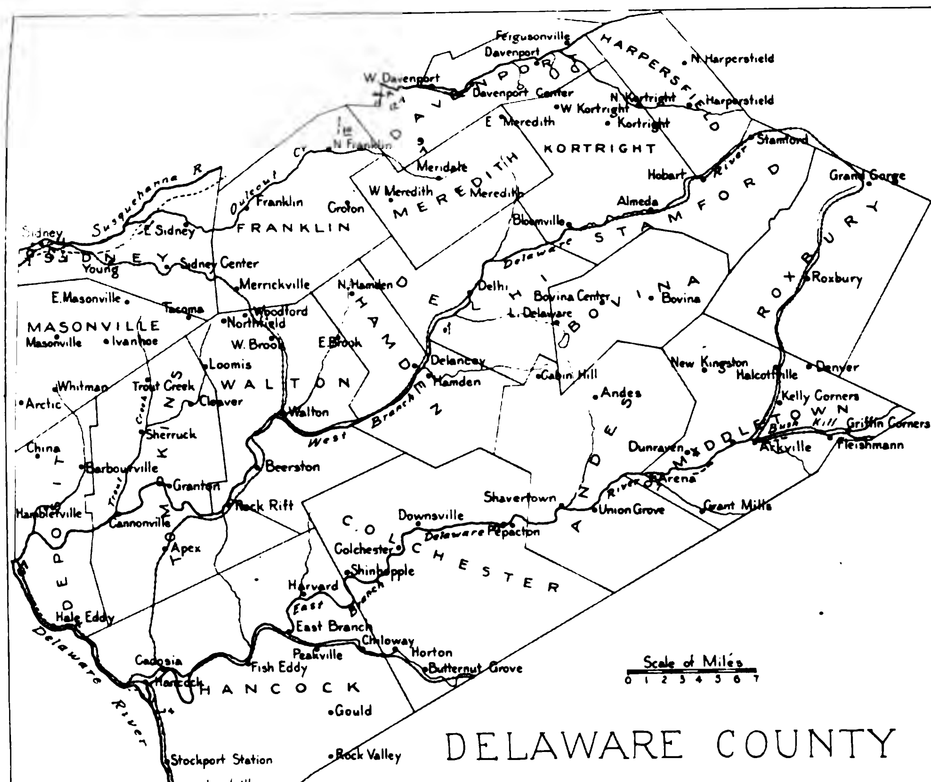

NORTHLIGHT
MERIDITH
FRANKLIN
Sidney
E. Sidney
Franklin
Groton
Meridale
W. Meredith
E. Meredith
Sidney Center
Merrickville
Young
E. Masonville
Tacoma
MASONVILLE
Masonville
Ivanhoe
Woodford
Northfield
W. Brook
E. Brook
Loomis
N. Hamden
Delhi
Bovina Center
E. Delaware
Bovina
DELHI
BOVINA
Delaware
Hubart
Almeda
Bloomville
STAMFORD
Stamford
Grand Gorge
ROXBURY
Roxbury

Plate 166


DELAWARE COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
HARPERSFIELD
KORTRIGHT
STAMFORD
ROXBURY
MIDDLETOWN
BOVINA
ANDES
DELHI
MEREDITH
FRANKLIN
DAVENPORT
SIDNEY
MASONVILLE
WALTON
HAMDEN
COLCHESTER
HANCOCK
TOMPKINS
DEPOSIT
Fergusonville
Davenport
W. Davenport
Davenport Center
N. Harpersfield
Harpersfield
N. Kortright
W. Kortright
Kortright
E. Meredith
Meredith
W. Meredith
Meridale
N. Franklin
Franklin
Croton
Stamford
Hobart
Almeda
Bloomville
Grand Gorge
Roxbury
Denver
Halcottville
Kelly Corners
Griffin Corners
Fleishmann
Arkville
New Kingston
Dunraven
Arena
Grant Mills
Union Grove
Shavertown
Pepacton
Downsville
Andes
Cabin Hill
Bovina Center
Bovina
L. Delaware
Delhi
N. Hamden
Hamden
Delancey
E. Brook
W. Brook
Walton
Beerston
Rock Rift
Merrickville
Woodford
Northfield
Loomis
Cleaver
Trout Creek
Sherruck
Granton
Cannonsville
Barbourville
Apex
Sidney
E. Sidney
Sidney Center
Young
E. Masonville
Tacoma
Masonville
Ivanhoe
Whitman
Arctic
China
Hambletville
Hale Eddy
Colchester
Shinhopple
Harvard
East Branch
Chiloway
Horton
Butternut Grove
Peakville
Fish Eddy
Cadosia
Hancock
Gould
Rock Valley
Stockport Station
Lordville
Susquehanna R.
Ouleout Cr.
Delaware River
West Branch
East Branch
Trout Creek
Bush Kill

Doctor Hunt built a house
the east side of the river. It
circular depressions near tog
opened, and earthen vessels ar
p. 226).

6 Camp site on the bay sou

7 Camp site on the south
ill near Linlithgo.

8 Camp site on the point
mouth of Kinderhook creek.

9 Camp site on the east sid
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10 Camp site on Kinderhoo

11 Camp site on the north s
and near a small brook.

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1 Camp site on the west bank
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2 Burial place just south of
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were many circular depressions
found in 1850 when the graves

3 Camp site in the town of
brook and on the Genung prope

4 Camp on the southeast tip o

5 Two camps just north of C

Delawa

List

1 There was an Indian fort a
by mounds and surrounded by a
in the northwest corner of Sidney
been called the fort grounds" (F
thinks this may be the fort of
second home of the giant, the firs

2 Burials on the Ontario and
fourth of a mile above Sidney.

3 Village site on the Milton Joh

Doctor Hunt built a house in 1794 a mile south of Marat the east side of the river. It was on a knoll where there wer circular depressions near together. About 1850 these grave opened, and earthen vessels and human bones were found (Gc p. 226).

6 Camp site on the bay southeast of Hudson.

7 Camp site on the south side of the mouth of Roeliff J kill near Linlithgo.

8 Camp site on the point west of Columbiaville, north mouth of Kinderhook creek.

9 Camp site on the east side of Claverack creek south of port.

10 Camp site on Kinderhook lake near Niverville.

11 Camp site on the north shore of Copake lake east of th and near a small brook.

Cortland County

List of Sites

1 Camp site on the west bank of the Tioghnioga north of I Mills.

2 Burial place just south of the village of Marathon but east side of the river not far from the mouth of a small stream directly southward. The graves were found on a knoll whe were many circular depressions close together. Iroquois pott found in 1850 when the graves were opened.

3 Camp site in the town of Tapeer on a bluff overlook brook and on the Genung property.

4 Camp on the southeast tip of Skaneateles lake.

5 Two camps just north of Cortland.

Delaware County

List of Sites

1 There was an Indian fort at Sidney Plains, of 3 acres by mounds and surrounded by a ditch. It was on the Susq in the northwest corner of Sidney. "From early times the pl been called the fort grounds" (French p. 264). Doctor Bea thinks this may be the fort of which David Cusick spok second home of the giant, the first being at Oxford.

2 Burials on the Ontario and Western Railroad prope fourth of a mile above Sidney.

3 Village site on the Milton Johnson property in Sidney.

4 Burial site on the Casper Egbert property at the junction of the east and west branches of the Delaware. This is on great lot 35, division 9 of lot 2.

5 Village site on the I. W. Seymour property in Hancock, lot 1 and 2.

6 There was an Indian village at the mouth of Cole's brook, on the north side of the Delaware in Colchester. Some apple trees remained (French, p. 260).

7 Traces of fortifications near the mouth of Mill brook and on the banks of the Delaware. Here are certain remains "which bear a strong resemblance to works of art. Many suppose them to have been ancient fortifications or works of defense. In the vicinity was once found what was supposed to have been a stone battle axe, and arrowheads existed in great abundance in that immediate locality . . . There are two [fortifications] in number, each of a circular form, and they were surrounded by a high embankment protected by a deep ditch. The one on the east side of the river has been passed over many times with the plow, but much of its original form and symmetry are still visible. The other on the opposite side, farther down the stream, is still surrounded by a deep ditch, filled with growing trees and underwood, but has less regularity and will not so soon attract the attention of the antiquarian." (Gould, p. 50, 51.) This may be the one to which Schoolcraft alluded in his report (p. 208), "On branch of the Delaware a fort one thousand years old by trees."

8 Village site on great lot 39 in Middletown.

9 T. L. Bishop reports this and the following. Relics occur near a large boulder at Ouleout post office, a traditional meeting place for Indians.

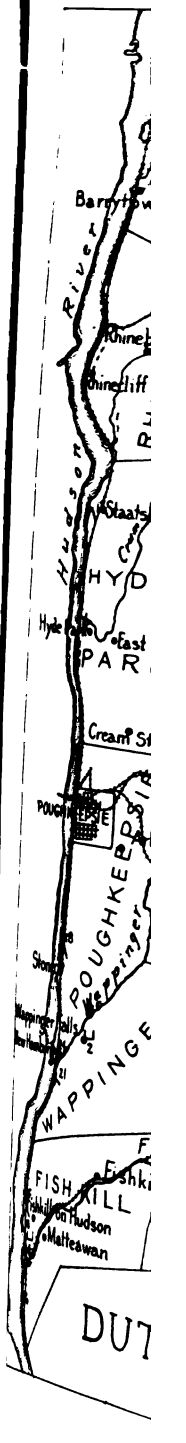
10 Several banner stones were found at the Vlie on the mountain 3 miles south of Oneonta.

11 An old Indian orchard is on the north side of Charlotte river, west of West Davenport, on an old trial.

12 Village of Adiquatangie at West Davenport.

Dutchess County

General occupation. Dutchess county lies south of the Mahikan territory, though at one time some of this tribe were on Wappinger creek. The Wiccopees were above the Highlands on the east side of the river, and the Wappingers lived on Matteawan creek and eastward to the Taghkanick mountains. The Sepascots were at Rhine-



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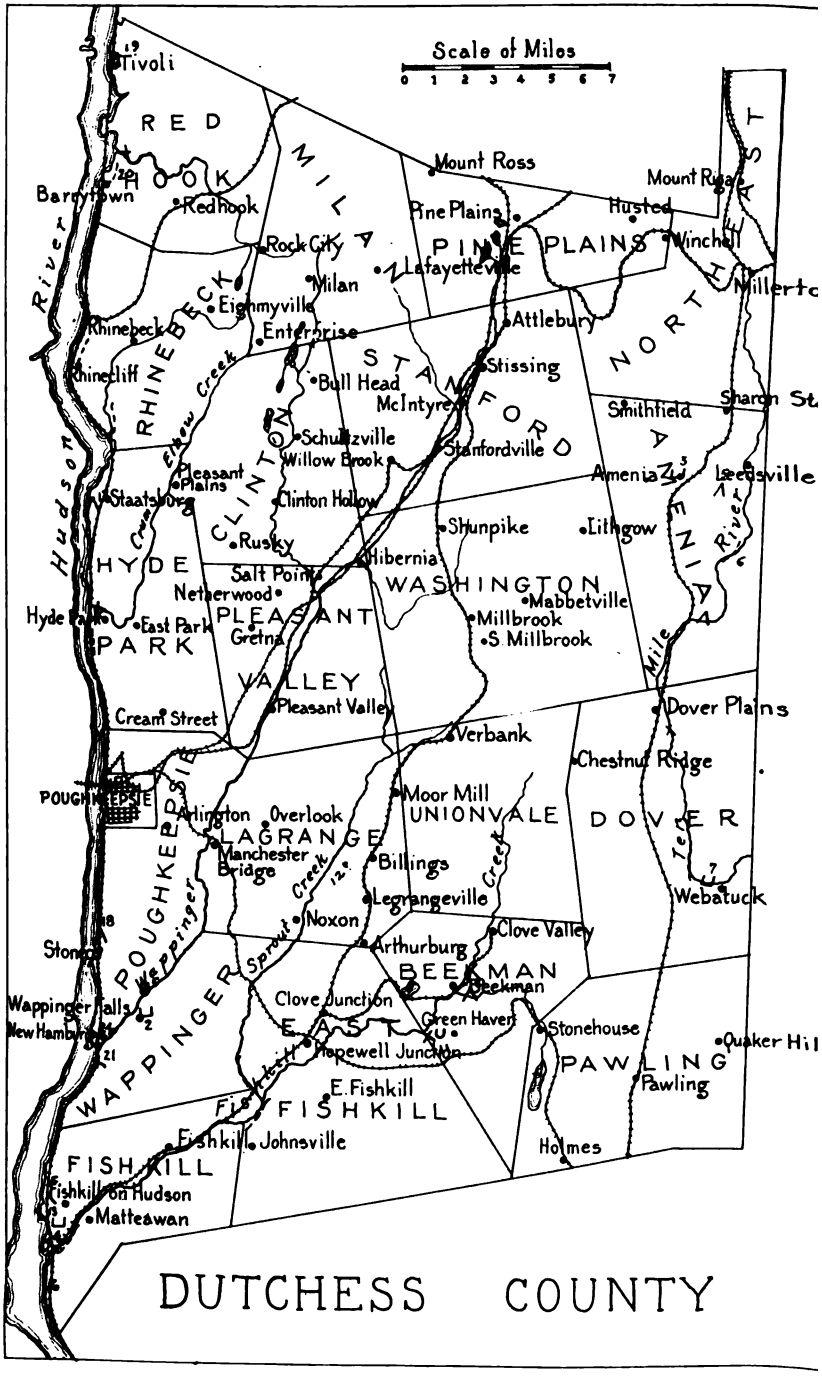
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Plate 167



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Hudson

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8 Village si
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9 In Octobe
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found east of t
10 A village
(Smith, Dutche
11 A cache
part of Beekma
12 "On the Sp
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(Barber, p. 133).
13 There were
(Smith, Dutchess.
14 Village site n
are found.
15 Village site o
Dean.

beck, but of the exact location of their village we have no definite notes. A few Esopus Indians were also on the east shore of the Hudson in 1663, opposite Magdalen Island.

List of Sites

1 A recent village 2 miles south of Bethel or Pine Plains, was the Moravian mission of 1740 (Smith. Dutchess, p. 302). French places this in the town of Northeast, "at an Indian mission house at the north end of Indian lake. The remains of this mission house are still visible on the farm of Douglas Clark." (French, p. 273.)

2 Burial site in Wappingers Falls between the Episcopal church and Halls.

3 Burial site on lands of Myron P. Benton and also near Amasa D. Colemans in Amenia.

4 Burial site on Sleight farm, LaGrange.

5 Village site on the Troutbrook farm in Amenia. Arrowheads, gouges and scrapers are found.

6 Council grove at the Nook, by the river in South Amenia, and some cabins at the outlet of Smith's pond.

7 Some recent graves on Apple Sauce hill in Dover were thought to be Pequots by Smith (Dutchess, p. 155).

8 Village site in Dover on the Lossing farm. Arrowheads and pestles are found.

9 In October 1882 six skeletons were exhumed at Fox's Point, Poughkeepsie. All the relics near these were early. Some were found east of the railroad. (Smithsonian Report, 1883.)

10 A village with recent relics at Noxon meadow in Beekman (Smith, Dutchess, p. 135).

11 A cache of flint was found at Green Haven, in the west part of Beekman (Smithsonian Report, 1877, p. 307-8).

12 "On the Sprout creek, which rises in La Grange, a great quantity of bones have been accidentally discovered, lying promiscuously as if a vast pile of human bodies had been made and left to rot" (Barber, p. 133).

13 There were several cemeteries and orchards in Fishkill. (Smith, Dutchess, p. 175). A recent village was at Fishkill Hook.

14 Village site near Denning's Point. Spearheads and arrowheads are found.

15 Village site on the flat land near Fishkill, reported by James E. Dean.

16 J. W. Nelson of Cold Spring located many sites from Denning's Point, Dutchess county to Croton point, Westchester county. He did some collecting at Denning's Point, at the mouth of Matteawan creek. There he found early fireplaces and graves. A large grooved stone and also a broken one were obtained here.

17 Village at Staatsburg.

18 Village at Milton Ferry.

19 Village site at Tivoli.

20 Village site at Barrytown.

21 Village site at New Hamburg.

22 Village site on the Van Wyck farm, Manchester Bridge.

23 Village site on John Ham farm, Washington Hollow.

24 Quarry site, containing chert nodules in limestone worked by Indians, nearly above the New York Central railroad tunnel at New Hamburg.

25 Quarry site on the Boardman farm, 4 miles northeast of New Hamburg on same limestone ridge as preceding.

Erie County

General occupation. The geographical location of Erie county must have made it especially inviting as a center of aboriginal occupation, and both archeology and history adduce facts to prove this true. Both Tonawanda creek on the north and Cattaraugus creek on the south were important water routes, while the fertile valleys and the secluded hills afford both agricultural lands and secure retreats. At the opening of the historic period we find the names of three Iroquoian nations associated with this region, the Neuter, Erie and Wenroe. Before these peoples entered this locality others had been equally attracted by it and we find many traces of a mound-building people distributed all along the southern shore of Lake Erie and in the valleys of the Cattaraugus and Tonawanda. Traces of these people, however, are not so definite or so deeply stamped in the earth as are those of the Iroquoian nations who left deep layers of refuse and filled the soil with charcoal and the by-products of their industries. A journey through the valleys of any of the streams flowing westward into Lake Erie will reveal numerous village and camp sites. In certain places, as along the Tonawanda or the Cattaraugus, there are few places on the creek flats that do not show evidences of aboriginal occupation. Important hills back of the flood plains are covered with earthworks,

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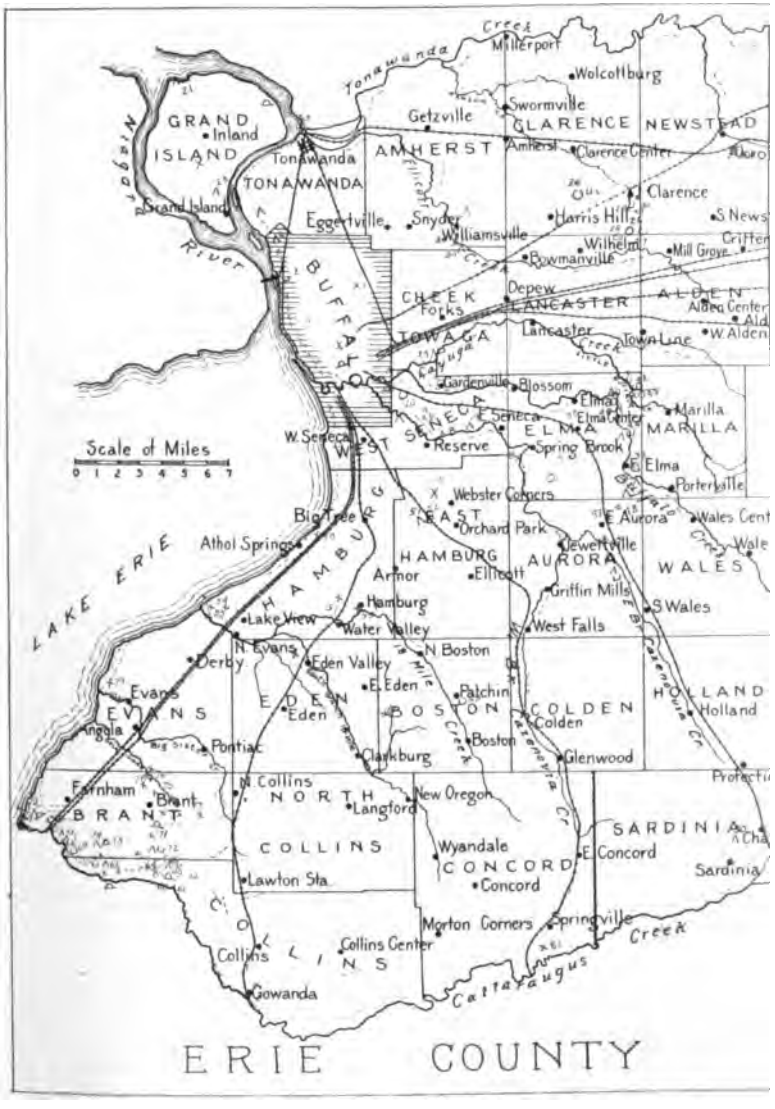
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Plate 168



the level lands upon the flood plains are strewn with village sites and the creek flats show every mark of having been cultivated in early times. Indeed the present sites of many of the important village and cities in the county overlie earlier Indian settlements and excavations made in these places for cellars and other purposes seldom fail to bring to light some traces of the red race. This is true of the city of Buffalo, East Aurora, Hamburg and other places.

The region now embraced by the county was early known to the French missionaries and explorers, many of whom passed over the Indian trails into Canada and southward into Ohio. The county now contains portions of two of the Seneca reservations and an Indian population of perhaps 2000. Undoubtedly these people still bear in their veins the blood of the earlier occupants of the region, the Neuter, Wenroe and Erie and the vanquished Kah-kwa.

Many of the aboriginal village sites and burial grounds found in the valley of the Cattaraugus and vicinity usually credited to the Erie exhibit characteristics that lead one to think that in reality they belong to the Seneca. The clay vessels and pipes are counterparts of those found in the valley of the Genesee, the original habitat of the Seneca. Farther west along Lake Erie shore are sites that are unmistakably Erie. Here the pottery is vastly different in form and decoration. The Iroquois exterminated the Erie about 1654 and from that time until the war of the American Revolution their territory was supposed to have been uninhabited. To have left so rich a hunting ground unvisited and without settlements is contrary to the known policies of the Iroquois and it is extremely probable that the Seneca, to whom the territory naturally fell, early had villages and defensive works there. Tradition has little to say of this occupation though there are a few faint glimmerings that might lead to the idea. Archeology, however, sheds a more definite light on the matter and from the material found in grave pits and refuse heaps in the Cattaraugus valley one is led to say there is much evidence to support the statement that the locality was occupied by the Seneca soon after the Erie were driven from it.

Considerable archeological work in Erie county has been done by Prof. Frederick Houghton of the Buffalo Society of Natural Sciences, by M. R. Harrington for the Peabody Museum of Harvard and by A. C. Parker of the New York State Museum.

List of Sites

1 A village site in the town of Tonawanda almost opposite the head of Grand island. Scattered relics are found along the creek.

2 A large ossuary was found near the river in Black Rock. The skeletons were "in a circle, with their heads radiating from a large copper kettle which had been placed in the center and filled with bones." There were other early and modern articles. (Squier, p. 100.) One of Doctor Benedict's groups lay east of this and embraced eight sites.

3 A village site and mound on White's island opposite the mouth of Tonawanda creek. The culture seems to be Neutral.

4 Mound in town of Grand island on the Galliger farm on the Ransom road.

5 A small mound, called Dah-do-sot or "artificial hill" by the Senecas, was toward Buffalo creek, and a mile nearer the center of the city than the old fort on that stream. It was originally 5 feet high, and nearly 40 feet around, with a corresponding depression on one side (Squier, p. 74, 75).

6 Village site on the river bank at Buffalo opposite Strawberry island. Many open-air workshops occur along the river.

7 Camp in Buffalo, in Forest Lawn cemetery.

8 Camp sites along Cazenovia creek.

9 Extensive village and burial site on Fenton street, Buffalo, excavated by Frederick Houghton; seventy-five skeletons, many iron axes, beads, stone mortars and clay vessels were found. The occupants are thought to be Wenro.

10 An earthwork on Buffalo creek near the city is of about 4 acres. Red Jacket and Mary Jemison were originally buried there. It was near the old mission house; the council house was a mile away toward Buffalo. It was somewhat semicircular and had one gateway. Lodge sites and broken pottery were found within. It was the reputed scene of the last battle between the Kahkwahs and Senecas. (Squier, p. 73–75, pl. 9, no. 1.) The area is about 4 acres.

11 Village site and earthwork in Buffalo, between Buffum street and Indian Church road at the city line. This site is on the A. D. Strickler property and has been carefully examined by Prof. Frederick Houghton, who reports two cemeteries and two occupations. There are numerous refuse pits. The earlier site yields bone implements, shell articles, celts, clay pottery, pipes. In the later burial

place glass beads are found. Professor Houghton identifies the two occupations as Wenro before 1639 and Seneca about 1780.

12 Camp site on Niagara street in Buffalo, yielding pottery.

13 Camp site in West Seneca on the Lackawanna Steel Company's property.

14 Camp site in West Seneca on the north bank of Smokes creek on lot 22, R. 8, on the steel company's property. Notched and beveled points are found.

15 Camp site in West Seneca, lot 348, R. 7, on the south side of the ridge road near the southeast corner of Holy Cross cemetery. Notched points, drills, gouges, celts and a few potsherds are found.

16 Camp site in West Seneca on the north side of the ridge road on the Pratt property.

17 Village site, formerly Jack Berry's town, in West Seneca, in the village of Gardenville. The date is modern, 1780–1840.

18 Village site covering extensive area on lots 129–99 in West Seneca. This is on the A. S. Schwab and William Eaton farms in Ebenezer. There are refuse pits, pottery, triangular and some notched flints, clay pipes, bone implements and stone objects. Professor Houghton thinks the occupation is Wenro.

19 Village and burial site on lot 272 in West Seneca is on north side of Potter road on the highest terrace above Cazenovia creek. Frederick Houghton describes the culture as Wenro and mentions stone axes, potsherds, bone implements, two bird stones as found. In the graves, brass and iron objects have been discovered.

20 Village of the historic period, 1780–1840, on the Potter road at the east bank of the Cazenovia, at the ford. This was an Onondaga village having a council house. Silver brooches are found on the site.

21 Village and cemetery on lot 111 on Grand island. These are situated on the edge of West river on the Van Low estate. Professor Houghton, who excavated the site in 1909, considers the culture to have been Neuter. He found notched and triangular arrow points, potsherds and flint chips in the village. In the graves were clay vessels, brass kettles, arrowheads, shell beads, bone combs, a Jesuit ring and a marble pipe. Fifty-seven skeletons were found.

22 Camp site on Grand island on the south ridge of Love road near the Base Line road.

23 Village site on lot 11 on Grand island. Potsherds, flints and bone objects have been found. This site is described as on the Galliger farm.

24 Village site and cemetery in Cheektowaga where William street crosses Cayuga creek. Described by Houghton (p. 312).

25 Burial site where Cheektowaga city hall now stands, reported by William Brennan, of Sloan.

26 A circular work was on the terrace not far back of Clarence village. This site is about 2½ miles south of Clarence.

27 Village site and fort, a mile beyond, contained less than an acre. The bank and ditch were irregular in size and there were caches within. The work is on "a sandy, slightly elevated peninsula, which projects into a low-tangled swamp." The outline is elliptic and a cemetery was near. On the plate it is said to be 1½ miles southwest of Clarence hollow, but the text seems to place it north (Squier, p. 79, pl. 11).

28 A mile eastward was an ossuary with four hundred skeletons, and in the same field were recent and early relics. A rude sepulture was in the rocks (Squier, p. 79).

29 Burial site on lot 6, on the A. Wall property, Clarence. This site is on the east side of the cemetery road.

30 Burial site on lot 8, Clarence, three-fourths of a mile south of Clarence village on the west side of the cemetery road, near Fillmore cemetery. This site was excavated by Dr Ernest Wende.

31 Camp site on Harris hill on the Stevens farm in Clarence township.

32 A few miles from Clarence the Batavia and Buffalo highway passed through the last of the Clarence works. It was on the Vandewater farm. Clarence works are now obliterated. "Some bone pits, in addition to those already mentioned, occur in Clarence township" (Squier, p. 80, 81).

33 Camp site in Amherst on the southwest bank of Ellicott creek, near Williamsville.

34 Village site on lot 6, on the south side of the Batavia road. This site is on the Vandewenter farm.

35 Village site near Fisher Falls in Newstead, on the south side of Murder creek, on lot 42. It was somewhat oval and had caches. Squier thought it a work mentioned by Kirkland in 1787 (Squier, p. 80, pl. 11, no. 2). Beauchamp says: "It is probably one of the Neutral forts. There is a cemetery on the sandy knolls west of the embankment." (See figure 74.)

36 Village site on lot 7, Elma, on the Mullen estate east of the creek road. This site is regarded by Professor Houghton as Wenro. There are numerous refuse heaps, lodge sites, stone axes, bone implements and pottery fragments.

37 Village site on lot 18 in Elma on the west side of Buffalo creek on high bank. Triangular flints, potsherds and celts are found.

38 Village site in Elma on the Big Flats. This is a recent Seneca site of the post-revolutionary period.

39 Village site in Elma covering extensive area, on lot 4, is on the north side of Buffalo creek just west of the town line. Numerous refuse heaps and triangular points are found. A brass ring and a piece of wire are the only European objects found. A bone effigy

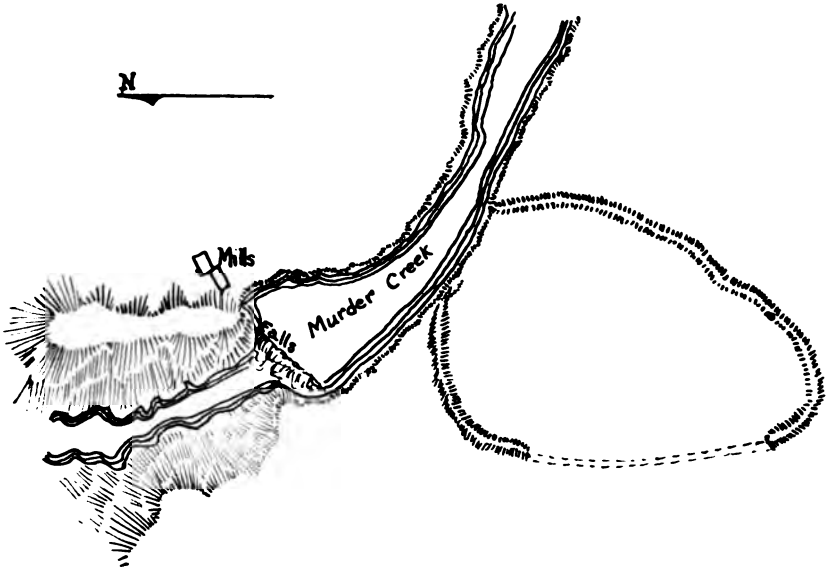


FIG. 74 Sketch map of the Murder creek site near Newstead (after Squier)

of the human figure was discovered in a grave. Houghton reports the site as excavated by Charles and Ernest Simons and says the culture is Wenro.

40 Earthwork, now obliterated, was on lot 29 on the Stitz farm in Elma, near the northwest corner of the Bulles and Girdled road.

41 Earthwork on lot 6 in Elma on the Vandewenter farm on the south side of the Batavia road at the "turn."

42 Earthwork, now obliterated, was on the east side of Little Buffalo creek, west of the Town Line road on lot 6.

43 Earthwork on lot 2, Elma, on the Clinton road near the Town Line road.

44 Cemetery on lot 11, Elma, on the east side of Buffalo creek on the Tolsma property.

45 Village and burial site on lot 13 in Aurora on the west side of the Olean road. The occupation seems Seneca. The site is known as "Bead Hill." Explorers have found iron axes, beads, pipes, pottery, triangular points, etc.

46 Camp site in Aurora on Fort Hill, on the Riley estate.

47 Camp site in Aurora on Main street in East Aurora near the Girdled road. Clay pipes have been found.

48 Embankment in East Aurora on a hill on the Girdled road. Iron axes and pottery have been found by Dr H. W. Williams.

49 Earthwork in Boston, inclosing 2½ acres. The site is near Boston Center.

50 Village site reported on the William Phillips farm, near Chaffee, in Sardinia township.

51 Village site, extensive, in East Hamburg at the junction of Smokes creek and a small brook. The site is on the George Ellis and Charles Diemer farm east of Abbott road. The occupation is identified by Professor Houghton as Wenro. A large cemetery was destroyed by contractors and many clay vessels were broken and thrown in the excavations.

52 Burial site in East Hamburg on the Harry Yates farm. Pipes and copper rings have been found.

53 Camp at East Hamburg near Dewell's Corners, on the Engle and Girnold farms.

54 Embankment, now obliterated, on Eighteen Mile creek. "Here are vestiges of the Indians, old forts, town sites, etc. Time and scrutiny are alone necessary to bring out its antiquities" (Schoolcraft, Report, p. 224). There are now some slight traces at the mouth of the creek.

55 Camp on high bluff on the north bank of Eighteen Mile creek is on the Donovan farm, lot 50, range 8, about one-half of a mile east of the Lake road. Many notched points and other stone tools have been found there. This is in Hamburg township.

56 Camp site in Hamburg at the southeast corner of lot 50, range 7. This is on the lowest terrace of Eighteen Mile creek and opposite Hampden brook. This site shows two diverse occupations.

57 Camp on lot 10, range 8, in Hamburg, is on the north bank of Eighteen Mile creek at the Erie Railroad bridge.

58 Camp in Hamburg on the banks of a brook east of the Lake road at Athol Springs. Notched points and a broken gouge are reported by Professor Houghton.

59 Camp on lot 2, range 7, Hamburg, on the south bank of the creek.

60 Mound in Collins township on the Sundown property, opposite the Seneca fair grounds, Cattaraugus reservation. This was on the edge of the terrace overlooking the Cattaraugus flood plain. The site was excavated by Dr A. L. Benedict.

61 Village site on the Cattaraugus reservation on the Crouse property near Versailles bridge. Algonkian pottery is found.

62 Village site in Collins township, Cattaraugus reservation, lots 56 and 57, between the Gowanda road and the Cattaraugus creek. Iroquoian pottery is found.

63 Burial site near this village but of more recent date is on the Asher Hare property on lot 57. The burals are Seneca of 1800 and the site is propably Upper Cattaraugus.

64 Village site, Iroquoian, on lot 49, on the Thomas Indian School property. An earlier occupation shows Algonkian relics.

65 Village and burial site. An extensive site of early and later occupancy (Algonkian and Iroquoian) on lot 49, and extending along the banks of Clear creek, which once had an outlet through the site.

66 A semicircular work on the north bank of Cattaraugus creek 1½ miles from the lake and about 17 rods long. Area less than an acre. Recent. (Cheney, p. 38, pl. 1, fig. 1. His plan is given in his figure 31.) Mr Sackett found many iron axes there but no bank. The site is near the present Episcopal chapel on the Seneca reservation.

67 A mound probably natural, was at the mouth of Cattaraugus creek. It was rather large and when it was washed away in 1844 skeletons and recent relics were found.

68 Burial mound at the mouth of the Cattaraugus on the west side. This mound was opened recently by a sand company. A

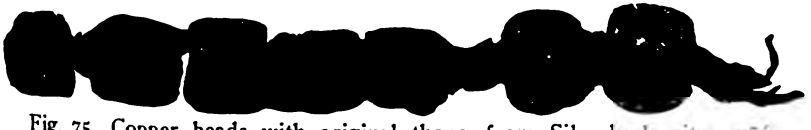


Fig. 75 Copper beads with original thong from Silverheels site. x⅔

skeleton and parts of a buffalo's jaw were found in it by E. R. Burmaster.

69 Village and burial site in Brant township. This is on lot 10 and in the Cattaraugus Indian reservation. The site was explored by Harrington and Parker in 1903 for the Peabody Museum and

'arker and Burmaster for the New York State Museum.
erty is the estate of H. Silverheels. Many clay vessels,
, flints, shell ornaments and bone implements were found.
ation is Seneca.

age site, early, at some distance north of the mouth of
us creek, where a road approaches the shore. This site
area of about 10 acres and there are evidences of several
is.

ound in the reservation, just north of the Collins line.

age extensive on the Lay estate on the Cattaraugus reser-
ts 17 and 31. This was a village of captive Delaware.
ott's map of 1804.)

nd on lot 28, Brant, is near the Theodore Jemison farm
ttaraugus reservation.

age site near and surrounding a mound on lot 28, is on a
g up from the Gowanda–Irving road to the terrace. This
Kenjockety and Jemison estates on the reservation.

p site on the Barron estate, lot 41, on Delaware creek,
ant Center. Leaf-shaped points and scrapers are reported.

p site on the United States Preserving Company's prop-
2, Brant, between Big Sister and Delaware creeks.

p on lot 5, reservation, in Brant township is on the south
e Gowanda–Irving road.

p site in Brant, one-fourth of a mile from the Barron
on the south side of Delaware creek.

p site in Evans, lot 76, on the north bank of Big Sister
he East line road.

p site on lot 66, Evans, on the south side of Big Sister
t of the Telegraph road. This is on the Harper property.
V. Calver found a large workshop in the village of Wil-
with local and foreign material.

p site south of Springville near the Cattaraugus creek.

supplementary remarks may be made on Erie county,
n the local collections of the Buffalo Society of Natural
A string of rice shells, tinged with copper, came from a
Barnard street. Village sites east and southeast of Buffalo
flint articles. Similar sites were north of the city, and
the Parkside district and on Seneca street and on the Abbott
site on the Indian Church road was of a mixed character.
les were mostly of the Iroquois type but there were early

New York State Museum
reels. Many clay vess
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north of the Collins line
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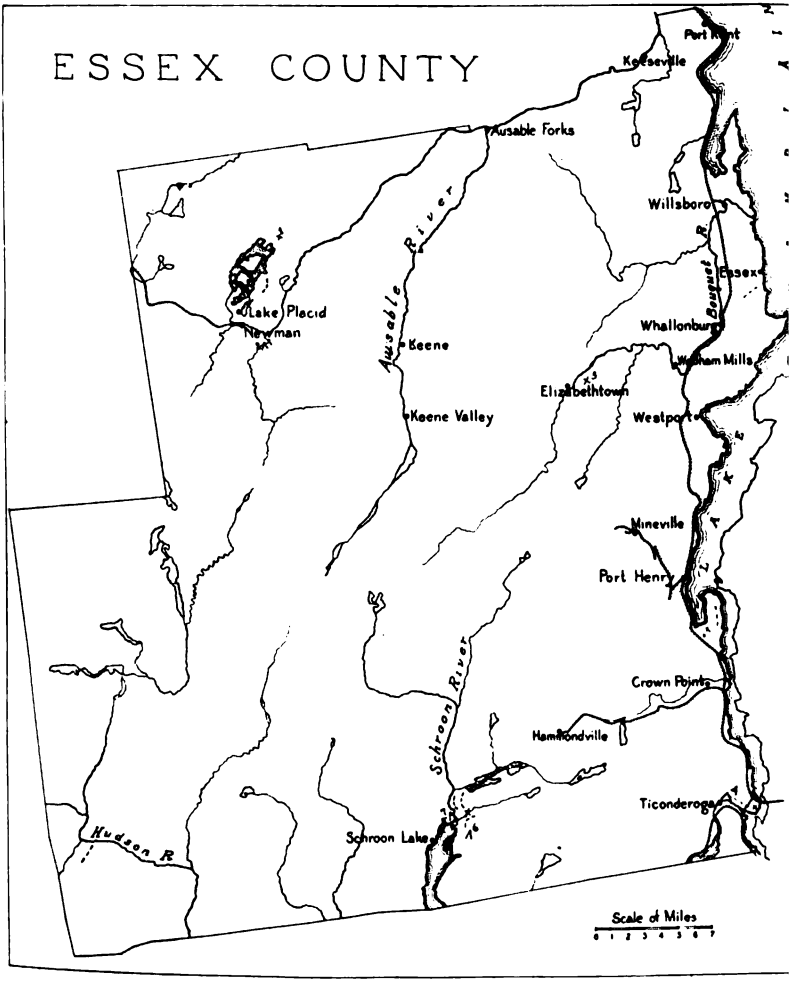
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a mound on lot 28, is on
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Preserving Company's pro
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Brant township is on the so

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the north bank of Big Sis

on the south side of Big Sis
This is on the Harper proper
workshop in the village of W
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near the Cattaraugus creek.
may be made on Erie coun
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tinged with copper, came from
sites east and southeast of Buffa
sites were north of the city, a
on Seneca street and on the Abb
ch road was of a mixed characte
Iroquois type but there were a

Plate 169



scrapers in the refuse. At this place and one other, perfora Melantho shells were found.

Forest Lawn group in Buffalo, east of Black Rock, embrac eight small sites.

Essex County

List of Sites

1 "The vestiges of Indian occupation in North Elba and territory around the interior lakes leave no doubt that at some forn time they congregated there in great numbers" (Watson, p. 210)

2 A supposed recent village has been reported at North E (Smith, Essex, p. 467).

3 Arrowheads etc. were abundant at Elizabethtown (Smi Essex, p. 467).

4 Camp sites indicated by large arrowheads, pestles, morta chisels, gouges, knives, axes and pottery, occur in the north part Ticonderoga, "along the creek, the flats of Trout brook, and es cially near the rapids at the head of the outlet." Recent articles w also abundant (Smith, Essex, p. 381).

5 Mound reported by Mr Marsh, on Schroon lake, as being the Platts farm in Schroon. This may be natural but arrowhe are found.

6 Village site on lot 3 in Schroon is on the eastern side of Schr lake. Pottery has been found.

7 Village site on the C. C. Whitney and Myron C. Pelkin pr erty, lot 3, in Schroon.

Franklin County

List of Sites

1 Burial mounds occur on islands in the St Lawrence, and can along its banks.

2 A burial mound on St Regis island was opened in 1818. T upper deposits of bones were well preserved. The lower ones w charred (Squier, p. 15; Hough, p. 25).

3 St Regis is on the boundary line on the St Lawrence; t inhabitants are mostly of Mohawk, Onondaga and Cayuga linea The band has been recently taken in by the Six Nations of N York to supply the place of the Mohawk.

4 Near St Regis on the east bank of St Regis river another mou was afterward opened (Hough, p. 25).

Plate 170

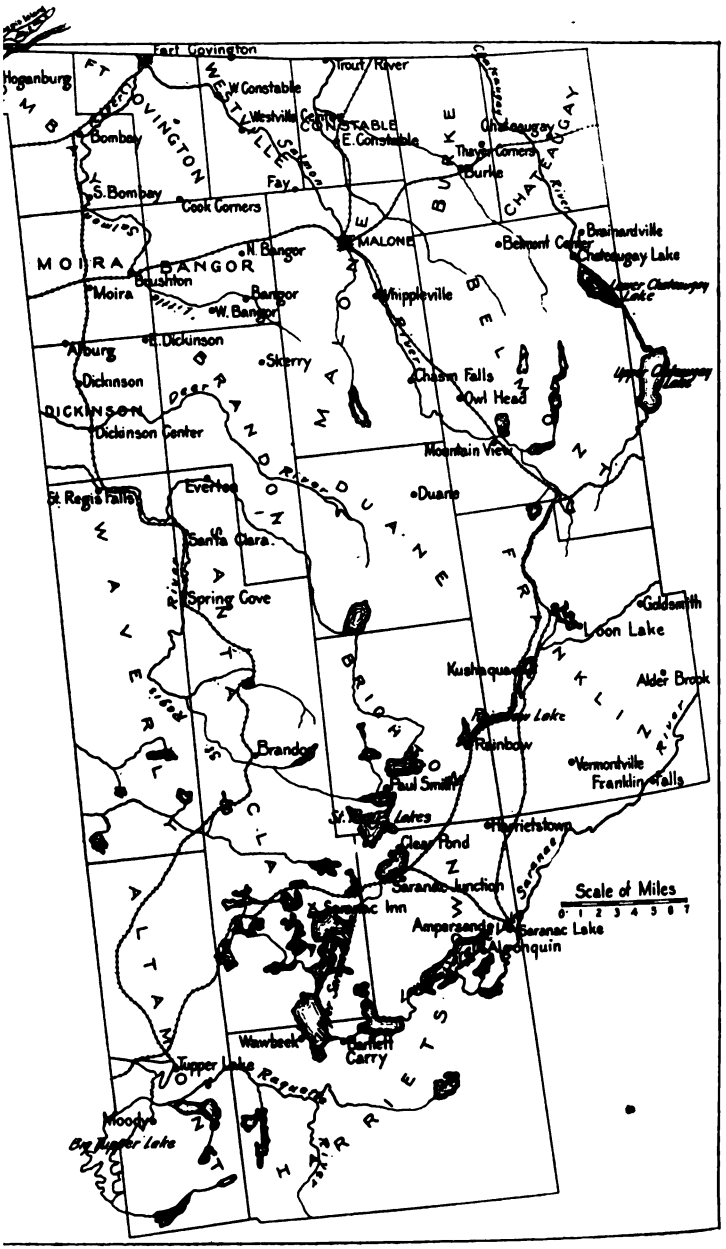

Hogansburg
Fort Covington
West Constable
Trout River
Westville Center
CONSTABLE
E. Constable
Chateaugay
Bombay
Thayer Corners
Burtle
S. Bombay
Fay
Cook Corners
MALONE
Brainardville
Belmont Center
Chateaugay Lake
MOIRA
BANGOR
N. Bangor
Moira
Bangor
W. Bangor
Whippleville
Upper Chateaugay Lake
Lower Chateaugay Lake
Alburg
E. Dickinson
Skerry
Chasm Falls
Owl Head
Dickinson
DICKINSON
Dickinson Center
Mountain View
St. Regis Falls
Everton
Duane
Santa Clara
Spring Cove
Loon Lake
Goldsmith
Kushaqua
Alder Brook
Rainbow
Brandon
Vermontville
Franklin Falls
Paul Smiths
Upper Saranac Lake
Harrietstown
Clear Pond
Saranac Junction
Scale of Miles
Saranac Inn
Ampersand Lake
Saranac Lake
Algonquin
Wawbeek
Tupper Lake
Raquette River
Moody
Big Tupper Lake



Plate 171

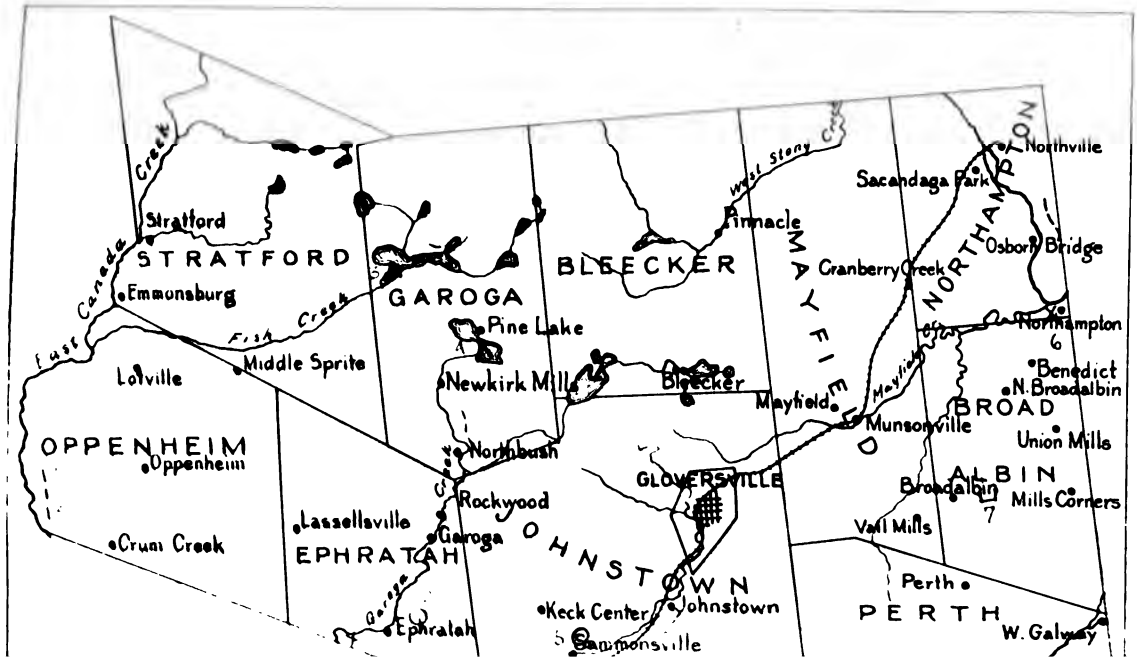
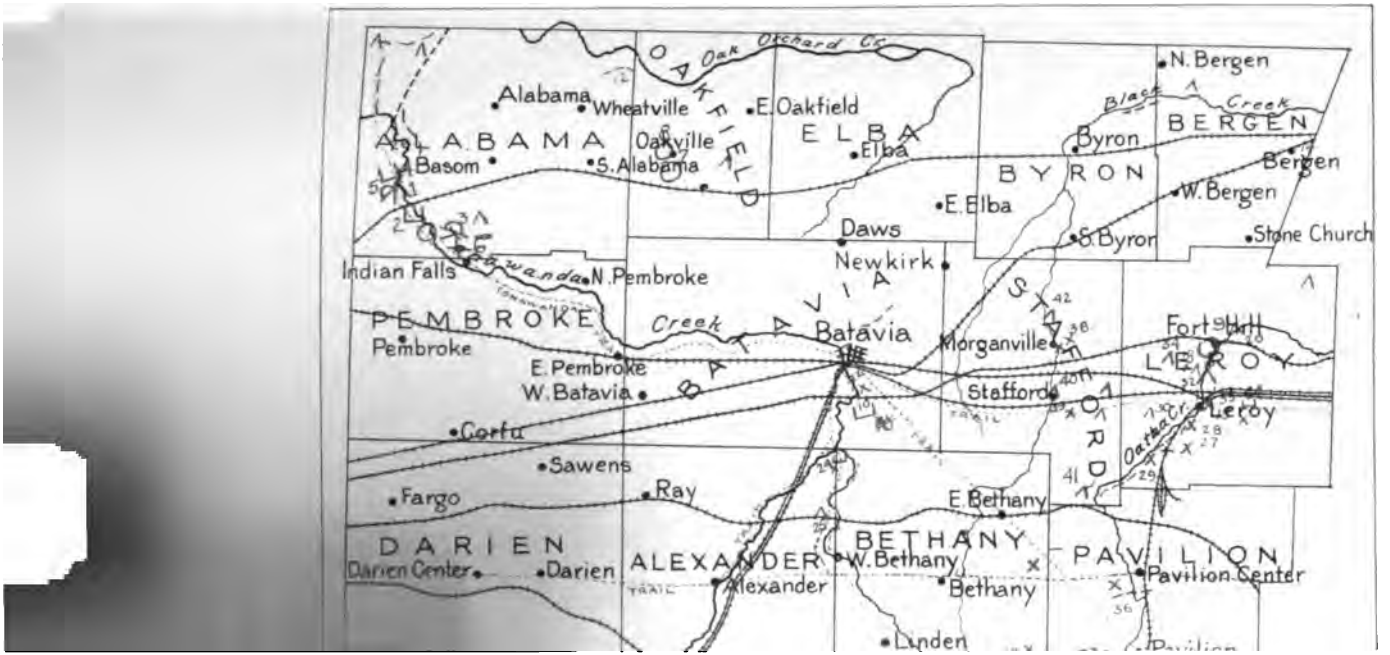

Creek
Stratford
STRATFORD
Canada
Emmonsburg
East
Fish Creek
Lotville
Middle Sprite
OPPENHEIM
Oppenheim
Crum Creek
Lassellsville
EPHRATAH
Garoga
Ephratah
GAROGA
Pine Lake
Newkirk Mills
Northbush
Rockwood
OHNSTOWN
Keck Center
Johnstown
Sammonsville
BLEECKER
West Stony Creek
Pinnacle
Bleecker
Mayfield
MAYFIELD
Cranberry Creek
Sacandaga Park
Northville
NORTHAMPTON
Osborn Bridge
Northampton
Benedict
N. Broadalbin
BROAD
Munsonville
Union Mills
ALBIN
Broadalbin
Mills Corners
Vail Mills
GLOVERSVILLE
Perth
PERTH
W. Galway

Plate 172


Oak Orchard Cr.
Alabama
Wheatville
E. Oakfield
OAKFIELD
ALABAMA
Oakville
ELBA
Basom
S. Alabama
Elba
N. Bergen
Black Creek
BERGEN
Byron
BYRON
Bergen
E. Elba
W. Bergen
Daws
S. Byron
Stone Church
Newkirk
Indian Falls
N. Pembroke
Tonawanda Creek
PEMBROKE
Batavia
Morganville
Fort Hill
Pembroke
E. Pembroke
W. Batavia
Stafford
LEROY
Leroy
Oatka Cr.
Corfu
Sawens
Ray
Fargo
E. Bethany
DARIEN
Darien Center
Darien
ALEXANDER
BETHANY
W. Bethany
PAVILION
Pavilion Center
Alexander
Bethany
Linden
Pavilion

Fulton County

List of Sites

1 Village site and stronghold on the George Christman farm on Garoga creek.

2 A site of 4 acres on Indian hill in Ephratah is on an oblong and steep sandy hill east of Garoga creek. Originally the palisade holes could be seen, but not when the writer explored it after it had been long cleared. S. L. Frey says that the pits from which the clay for pottery was taken, are abundant along the foot of the hill near the small stream on the east side. It is the oldest Mohawk site having pottery with human figures upon it, and one long brass bead has been found. It was well described by Mr Frey in the American Naturalist in 1885, and was probably occupied about 1600. This site was excavated by M. R. Harrington for the Peabody–Harvard Museum. (See plate 143.)

3 Village site on Canada lake is reported by S. L. Frey.

4 Village site on Garoga lake 10 miles from the Mohawk, reported by S. L. Frey.

5 An early stockade of about the same date on the east bank of Cayadutta creek a mile north of Sammonsville, was found in 1892. A trench across a ridge about 349 feet long inclosed a triangle between two ravines. This was 369 feet long. Relics as in the last, even to the long brass bead. This site was described by Robert M. Hartley, in Popular Science News, June 1896. There are 2¼ acres. Unio shells abundant. The occupation is early Mohawk.

6 Camp site with "many arrowheads" on Summeer House point and in Sacandaga valley, town of Broadalbin.

7 Burial site in Broadalbin three-fourths of a mile from the village on the banks of a brook near Woods Hollow.

Genesee County

General Occupation

The aboriginal remains of Genesee county are chiefly known by the extensive hilltop fortification situated in the town of Oakfield and near the little village of Caryville. This work was the first described by the Rev. Samuel Kirkland in 1788. Another important site is on the hill at the juncture of Fordhams brook and Allens creek, in the town of Le Roy, in the southeast part of the county. The Oakfield site has one of the largest and highest walls of any inclosure in the State. Squier says it is the best preserved of any that came under his notice; in his time the earth wall was 8 feet in

height above the outer ditch and he records seven gateways. A short distance from this earthwork was another large inclosure called the "Bone fort" from the large number of human remains found in pits within it. This site was earlier described in some detail by the Rev. Kirkland, who visited it with one of the Seneca chiefs.

The Le Roy site was 3 miles north of the village of that name and was described in a general way by Lewis Morgan. It was not an earthwork in the sense of being surrounded by a wall, but more of a fortified stronghold having a defensive wall on one end. Squier says, "the only trace of art is an embankment and ditch about 1500 feet in length, running east and west across the broadest part of the peninsula, not far back from the edge of the ravine." The Rev. C. H. Dewey of Rochester, who made some excavations at an early date, said that the trench was ordinarily from 8 to 10 feet deep and about the same width. It is now of less dimensions. An interesting form of pipe found all through the Seneca region was found in this earthwork and consists of a face having slitlike eyes and mouth, a long rectangular nose so modeled that it appears to look out from a hood with a triangular opening. Many of these are found on the earlier Seneca sites along the Genesee. Other sites of importance occur along the Tonawanda creek where there are numerous remains of an early Iroquois people and vestiges of the mound builders. An important mound was found on the old Parker farm, on lot 79, in Alabama. Other village sites and burials are found along the creek near the western boundary of the township. This county, like others in the region, shows evidences of several occupations.

Squier, in discussing the sites in this county, says that "in the town of Alabama, in the extreme northwest of the county were once three of these works of small size. This town adjoins Shelby, Orleans county, on the north and touches Newstead, Erie county, on the west. It will ultimately be seen that its ancient works constituted part of a chain extending from the lake ridge on the north to Buffalo creek on the southwest, a distance of 50 miles. Not less than twenty ancient earthworks are known to occur in this range."

In the early days, when the discovery of the Indian earthworks and fortifications first was appreciated, it was a popular thing to believe that they formed part of a systematic series of defensive strongholds such as any modern people might erect at strategic points along natural trails and passes. It was not commonly known that all these fortifications were not occupied at one time, nor that as a matter of truth no definite "chain erected for military purposes" ever existed in this general area.

Fulton County

List of Sites

1 Village site and stronghold on the George Christman farm on Garoga creek.

2 A site of 4 acres on Indian hill in Ephratah is on an oblong and steep sandy hill east of Garoga creek. Originally the palisade holes could be seen, but not when the writer explored it after it had been long cleared. S. L. Frey says that the pits from which the clay for pottery was taken, are abundant along the foot of the hill near the small stream on the east side. It is the oldest Mohawk site having pottery with human figures upon it, and one long brass bead has been found. It was well described by Mr Frey in the American Naturalist in 1885, and was probably occupied about 1600. This site was excavated by M. R. Harrington for the Peabody–Harvard Museum. (See plate 143.)

3 Village site on Canada lake is reported by S. L. Frey.

4 Village site on Garoga lake 10 miles from the Mohawk, reported by S. L. Frey.

5 An early stockade of about the same date on the east bank of Cayadutta creek a mile north of Sammonsville, was found in 1892. A trench across a ridge about 349 feet long inclosed a triangle between two ravines. This was 369 feet long. Relics as in the last, even to the long brass bead. This site was described by Robert M. Hartley, in Popular Science News, June 1896. There are 2¼ acres. Unio shells abundant. The occupation is early Mohawk.

6 Camp site with " many arrowheads " on Summeer House point and in Sacandaga valley, town of Broadalbin.

7 Burial site in Broadalbin three-fourths of a mile from the village on the banks of a brook near Woods Hollow.

Genesee County

General Occupation

The aboriginal remains of Genesee county are chiefly known by the extensive hilltop fortification situated in the town of Oakfield and near the little village of Caryville. This work was the first described by the Rev. Samuel Kirkland in 1788. Another important site is on the hill at the juncture of Fordhams brook and Allens creek, in the town of Le Roy, in the southeast part of the county. The Oakfield site has one of the larger and highest walls of any inclosure in the State. Squier says it [illegible]rved of any that came under his notice; in his time [illegible] 8 feet in

ity of the ancient town inclosed about 8 acres. The ditch around the first was about 5 or 6 feet deep. A small stream of water and a high bank circumscribed nearly one-third of the inclosed ground. There were traces of six gates or openings, and near the center a way was dug to the water. At some places at the bottom of the ditch Mr Kirkland ran his cane a foot or more in the soil, from which circumstance he concludes that the ditch was originally much deeper. Near the western (?) fortification, which was situated on high ground, he found the remains of a funeral pile, where the slain were buried after

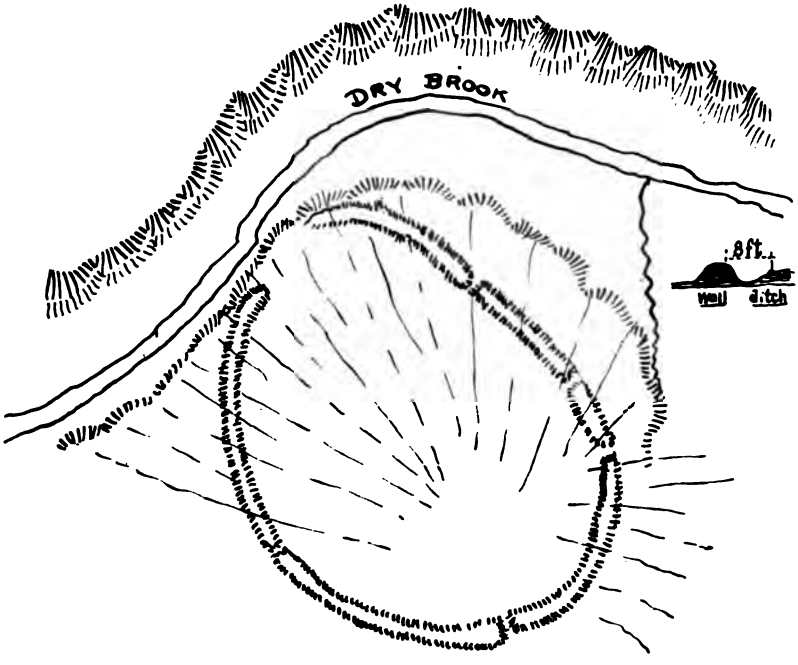


Fig. 76 Walled inclosure at Oakfield after Squier

a great battle, which will be spoken of hereafter. The mound was about 6 feet in height by 30 feet diameter at the base. The bones appeared at the surface, projecting in many places at the sides" (Squier, p. 66. 67).

Mr Squier's quotation from Yates and Moulton's account of Mr Kirkland's journal is not exact, but the only material difference is a change from "northern fortification" in the original, to "western" (Yates, p. 16, 17). It will be noticed also that Kirkland speaks of the bone mound as being near the fort, as is probable, instead of inside.

9 Fort Hill in Le Roy is 3 miles north of Le Roy villag gave a plan by L. H. Morgan essentially reproduced in his It is on a table-land bordered on three sides by the deep Fordhams brook and Allen creek. The steep banks are feet high. The peninsula is 1300 feet from north to south wide. A bank and ditch at the broadest part were 150 and nearly straight, the western end curving down the ra tons, pottery, beads, pipes, stone axes and arrowheads w Baked clay beads are mentioned (Squier, p. 69, 70, fi Dewey sent a similar plan to Schoolcraft, given in the lat but having some arbitrary features and variations. He north trench 60 rods and the east line 30 rods. At the corner was a cemetery (Schoolcraft, Report, p. 246, 4 been described by others, but while there are plain signs occupation the supposed work is now conceded to be nat clay beads "are long and coarse." A more detailed de found on pages 310–313.

10 "On what is called the Knowlton farm about 1 mi the town of Batavia is a small natural elevation which wa burial place by the Indians. It has been mistaken for Various relics have been discovered in plowing over it" 71). "There are still traces of a mound on Knowlton's f from Batavia up the Tonawanda. Bones and glass beads plowed out of it" (Schoolcraft, Report, p. 215). It w rods from the creek, and 8 feet above the general level Report, p. 282). This seems the one mentioned by M north (?) of Batavia, and originally 100 feet around an feet high (Macauley, 2:113).

11 Village site along the Tonawanda at the bend just Erie county line.

12 Traces of occupation along Oak Orchard creek.

13 Village site in Batavia.

14 A cemetery in a gravel bank 6 miles south and east has skeletons with and without early relics. There are fire Reported by C. F. Moseley.

15 Camp site on south side of the main road on the of the village of Le Roy. It is on the eastern bank of opposite the creamery on the farm of W. McCowan. opened in 1915 during the road repair excavations. appear to be of long occupation. Arrow points, celts ar stones have been found. The graveyard is thought to to be on a knoll to the west.

16 Camp site on the farm of Elizabeth Lyman, Le Roy. The place is known locally as "Indian mound," but the mound appears to be a natural formation, though arrow points, chippings and some worked stones have been found at the base. Particular examinations were made November 27, 1913 by Mr Follett, Mr Carter and Miss Lyman.

17 Camp site along the town lines of Bethany and Pavilion in the southeast corner of Bethany near White creek. This site is a mile south from the Pavilion Center–Bethany road. Gorgets have been found here.

18 Camp sites north of Le Roy along the Oatka creek and west of the North Leroy road.

19 Village site on the McPherson farm north of Le Roy and north and near the Fort Hill site. Crude arrow points and a few celts have been found.

20 Burial site connected with above site. Some skeletons have been found but no records are obtainable. Mr Follett reports one pipe of Iroquoian form found with a burial.

21 Camp site south of the brook and road south of the Lehigh Valley Railroad track south of Batavia.

22 A mound is described here. Glass beads have been found on the surface.

23 Burial site described along a trail west of Little creek in the northwest corner of Bethany township, and south of Batavia on the Alexandria road.

24 Burial site reported by Schoolcraft (p. 282) west of East Alexandria and west of Little creek and north of the Lackawanna Railroad tracks. Articles of bone and shell have been found here.

25 A fortified site is reported on the south side of Tonawanda creek (Yates, p. 18). This is just south of the inlet of the canal feeder.

26 Small village site south of Le Roy, situated on a knoll west of the pumping station. Quantities of bones have been found here when the field was being plowed. Reported by Mr Follett.

27 Camp site, now about obliterated, on the east bank of the Oatka creek in Le Roy village. This site is between the Pavilion Center road and the creek.

28 Small camp site southwest of Le Roy on Oatka creek, near the southwest corner of the township. It lies at the foot of the hill near a small stream and one-half of a mile west of the Pavilion Center road and west of the B. R. & P. tracks.

29 Village site in Le Roy township, west of Le Roy, on a knol south of the Stafford road.

30 Succession of camp sites on Oatka creek one-half of a mil north of the railroad bridge south of Le Roy.

31 Small village site north of Le Roy on the west bank of Oatk creek, exposed by plowing in 1914. This is at the southeast corne of the crossroads south of the Lehigh Valley Railroad tracks a North Le Roy.

32 Camping ground of the Seneca on the east side of Oatk creek. A portion of this land is now used by the Episcopal churcl It is on Church street near the waterfall. The Seneca called i Tecahnowunnadaneo.

33 Village site west of Fort Hill. Several darkened areas o soil are visible and arrow points, hammerstones etc. have been foun here. This is at the crossroads south of the Lehigh Valley Railroa tracks on the North Le Roy–Morganville road.

34 Camp site north of Le Roy where arrow points, celts and ham merstones have been found.

35. Small village on Oatka, creek, west of Pavilion Center an just north of the Bethany road. Arrowheads and celts.

36 Camp site on the F. Trescott farm west of Pavilion, west o the creek and between it and the southwest road. Arrow points an hammerstones.

37 Camp site in the village of Morganville. Dark areas in th surrounding fields show traces of occupation. The site is on bot sides of the creek. The arrow points are reported as crude.

38 Camp site east of Stafford where numerous relics have bee found. This is a mile east of the railroad crossing and south of th Le Roy road.

39 Village site in present village of Stafford. A trail junction an general camp site. The site lies in the north road to Morganvill

40 Camp site of early character west of Le Roy near Roanok Probably now obliterated.

41 Camp site north of Morganville about 2 miles, between the roa and the creek and just north of the first east road.

42 Burial site 6 miles south of Adams Basin, south of Ogder crossroads. Many well-preserved skeletons have been removed fro the graves here, especially by physicians for osteological studies.

43 Burial and village site southeast of Stone Church and northea of Le Roy reported by Mr Follett, who says: "Located on the farm of McCann and Lusher which join each other. Evidence of a muc

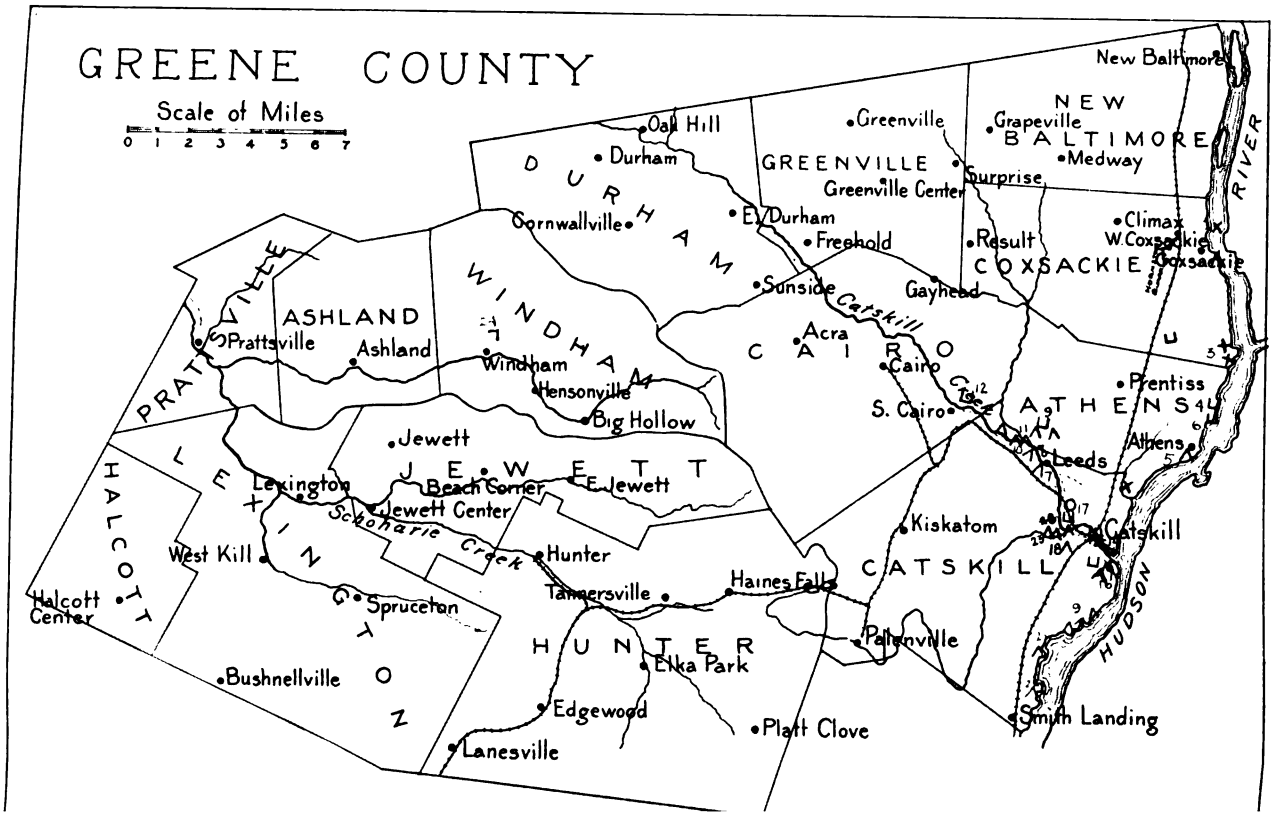
scattered village on McCann farm, main village seems to have been on a knoll on the Lusher farm, burials located in a gravel pit on McCann farm about two-thirds of a mile to the west of the village. Located by McCann while excavating for gravel and was extensively worked by him and Mr Lusher in the gravel pit only, as the gravel was taken out for road and building purposes. Mr McCann thinks about fifty bodies were removed in all; contained some clay pottery, finely decorated clay pipes, bone combs and bone beads. No European articles found, bundle burials noted, and the regular Seneca position with legs drawn up. My cabinet specimen 976 was presented to me by Mr McCann which contains twenty-nine wolf's teeth and one bear's tooth, six long bones all polished and brown with age, this is approximately one-half of the bone beads taken from this site. One of the long bone beads possessed by McCann contains evident record notches. The above mentioned beads are all perforated and show long usage. The pipes from this site are all ornamented with animal effigies, although one or two represented human faces."

Mr Lusher possesses a very fine highly polished game or gambling stone, found in a grave. A. H. Dewey of Rochester possesses many articles from this site. Surface findings consist of celts, few hammerstones, arrow points; pestles rare. There are several black earth spots scattered all over the two farms which resemble lodge sites, but do not yield the usual bone or other marks of habitation.

Greene County

At the opening of the colonial period this county was occupied by various branches of the Hudson river Mahikans, but there are apparently earlier sites and a number of interesting remains which do not seem characteristic of the later Algonkins. Most of the sites in the county are situated along the banks of the Hudson or in the valley of Catskill creek. With the possible exception of a few rock shelters and hunting camps, so far as is now known there are no traces of aboriginal occupation of importance in the mountains west of the river. There are some extensive chert quarries on a ridge of land back of Coxsackie and numerous small sites are scattered along the shores of the Hudson. Greene county has been studied with some care by Egbert Beardsley and Prof. George H. Chadwick, both of Catskill, and by Orin Q. Flint of Athens. From these observers our lists of sites in the county have chiefly come.

Plate 173


GREENE COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
New Baltimore
NEW BALTIMORE
Grapeville
Medway
Oak Hill
Greenville
GREENVILLE
Surprise
Greenville Center
DURHAM
Durham
Cornwallville
E. Durham
Freehold
Result
Climax
W. Coxsackie
Coxsackie
COXSACKIE
Sunside
Gayhead
Catskill
Creek
WINDHAM
ASHLAND
PRATTSVILLE
Prattsville
Ashland
Windham
Hensonville
Big Hollow
Acra
CAIRO
Cairo
S. Cairo
Prentiss
ATHENS
Athens
Leeds
Jewett
JEWETT
E. Jewett
Beach Corner
Jewett Center
Lexington
LEXINGTON
Schoharie Creek
West Kill
Hunter
Tannersville
Haines Falls
Kiskatom
Catskill
CATSKILL
HALCOTT
Halcott Center
Spruceton
Bushnellville
HUNTER
Elka Park
Edgewood
Platt Clove
Lanesville
Palenville
Smith Landing
HUDSON RIVER

List of Sites

1 Camp sites have been noted along the Hudso
On Flint Mine hill south of the village are quarry
has been taken out.

2 Camp sites at New Baltimore village.

3 Camp sites at Four Mile Point.

4 Burial site near an ice dock a mile north of the
West Athens road and one-half of a mile across a sm
skeletons were found when the ice house was buil

5 Village site in Athens. Known as Mackawai
a prominent landmark on the river, is on this site.

6 Burial site on the Harmon Van Woert property
have been found here. The State Museum has a lo
bead necklace, a gorget and shell pendants from th

7 Wachachkeek was on Catskill creek west of Le

8 Wichquamhtekak was just north of this but f
nearer the highlands.

9 Village and burial site covering several acr
Leeds and between Catskill creek and Potuck hill.

10 Pachqueack was opposite and across the river

11 Potuck was on both sides of the creek and w
of Potuck creek.

12 Burial site at Tagpohkight north of South

13 Village site on the west side of Catskill creek
hill 1½ miles north of the mouth of Kaaterskill cre
site of Quichtok.

14 Camp site on Femmin point at the north side
Catskill creek.

15 Large village site on the flat lands on the s
mouth of the creek.

16 On the south side of the Catskill about one-ha
the river and south of the town, was a hamlet at
Hopenose with abundant early relics. A works
south, and a cemetery was on the east side of the
Co., p. 106).

17 Village site at the bend of Catskill creek 1
west of the West Shore Railroad bridge. This
sand hill, where there is evidence of a stockade.

"The southwest corner of Jefferson flats, call
overlooks an old cemetery. On the plain below wa

that these notches represent the scalps taken by the original owner of the gorget. It may be a fanciful theory but we have never seen a gorget with such notches cut into it. If it were true, however, the owner must have been a champion scalper of those days.

From what we know of the use of native copper, and the extreme rarity of copper beads, may we not believe that this chain, even four centuries ago, was regarded with great reverence by its owner, as well as of great value, that possibly it was the possession of some mighty chieftain, or had descended down through the years from fathers to sons.

Hamilton County

On the northwest and west shores of Piseco lake along Irondequoit bay and near the outlet, are a dozen places where early relics have been found. On a large rock on an island at the outlet, "are three parallel grooves about 6 inches long and half an inch apart evidently of artificial origin."

List of Sites

1 At the angle and the bay of the outlet below are two camp sites yielding relics.

2 Three similar camps on the south shore of the lake between Benton's and Rude's points.

3 Eight camps at the northeast end.

4 Site on Pine island in Smith's lake.

5 On an island and on the mainland on the east side of Sacandaga lake there are two camps.

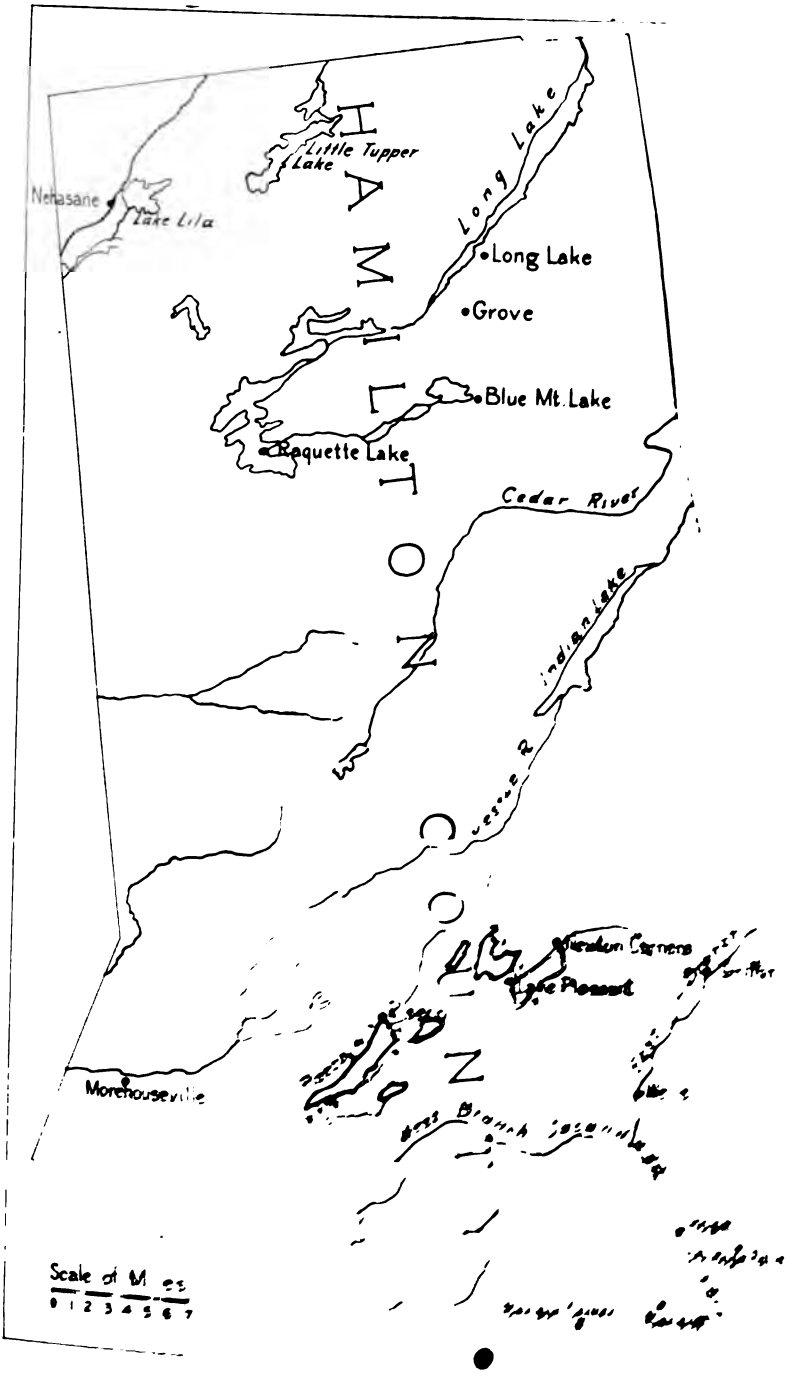
6 Three camps on the outlet of the same lake. One of these is on the lake shore and the others on Lake Pleasant.

7 Camp on the north shore of Lake Pleasant at its inlet. The above camps were reported by Herbert M. Lloyd.

A camp on each side of this stream, on the north shore of Lake Pleasant. Another at the northeast angle of the lake, north side of the outlet. As the entire wilderness was but a hunting resort the Iroquois thought it was not intended to be inhabited. On one early map it appears as "Cough-sa-ra-ge, or the beaver hunting grounds of the Six Nations." This name may come from Koh-sa-ke, winter, in allusion to the cold climate. On another map it appears as "Tysch-sa-ron-dia, where the Iroquois hunted beaver." An intelligent Onondaga interpreted this, "Where they shoot."

8 Village site at Old Oven point on Long lake.

Plate 174


HAMILTON
Little Tupper Lake
Long Lake
Nehasane
Lake Lila
Long Lake
Grove
Blue Mt. Lake
Raquette Lake
Cedar River
Indian Lake
Hamilton Corners
Lake Pleasant
Morehouseville
Scale of Miles
0 1 2 3 4 5 6 7

Herkimer County

List of Sites

1 Camp on the north side of South lake, one of the sources of Black river, 20 miles east of Boonville.

2 A burial place is nearby.

3 Early relics have been found near Mohawk village.

4 Indian Castle in Danube was so named from the upper Indian castle or fort, built in 1710 on the flat just below the mouth of Nowadaga creek. There was a mission church there in 1768; it was the home of Joseph Brant and King Hendrick.

5 Burial site of the historic period near the Reformed church.

6 Village site on the river flats at Herkimer.

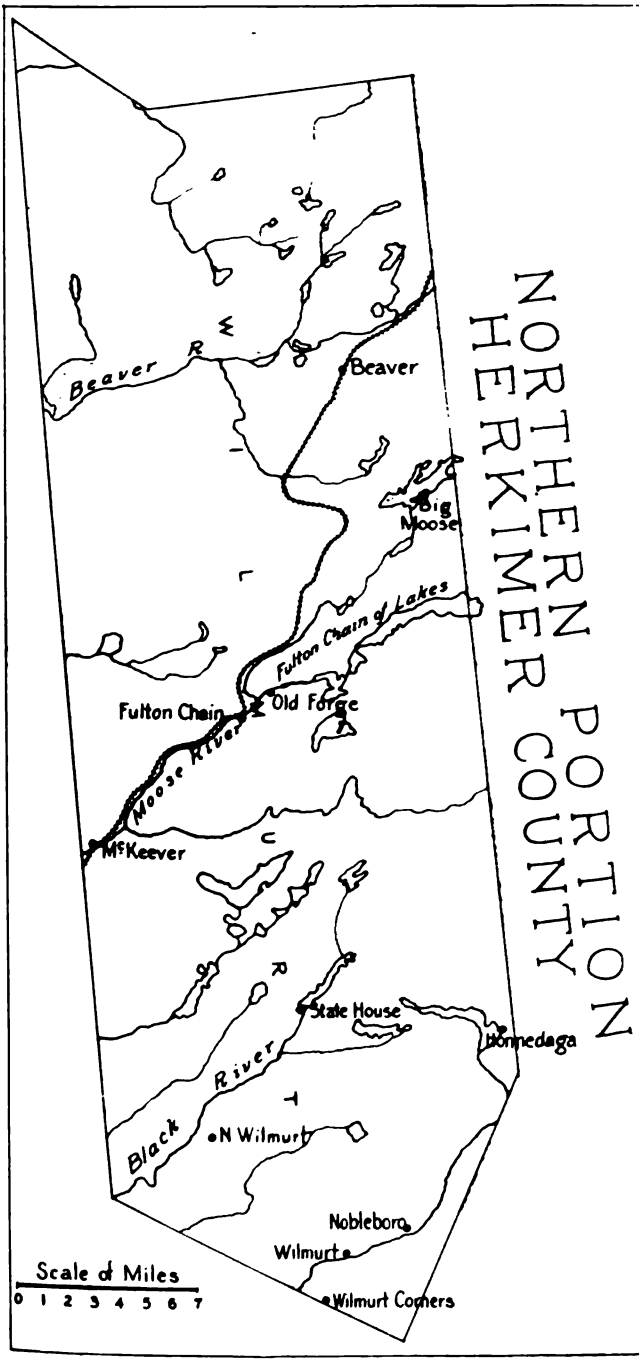
Jefferson County

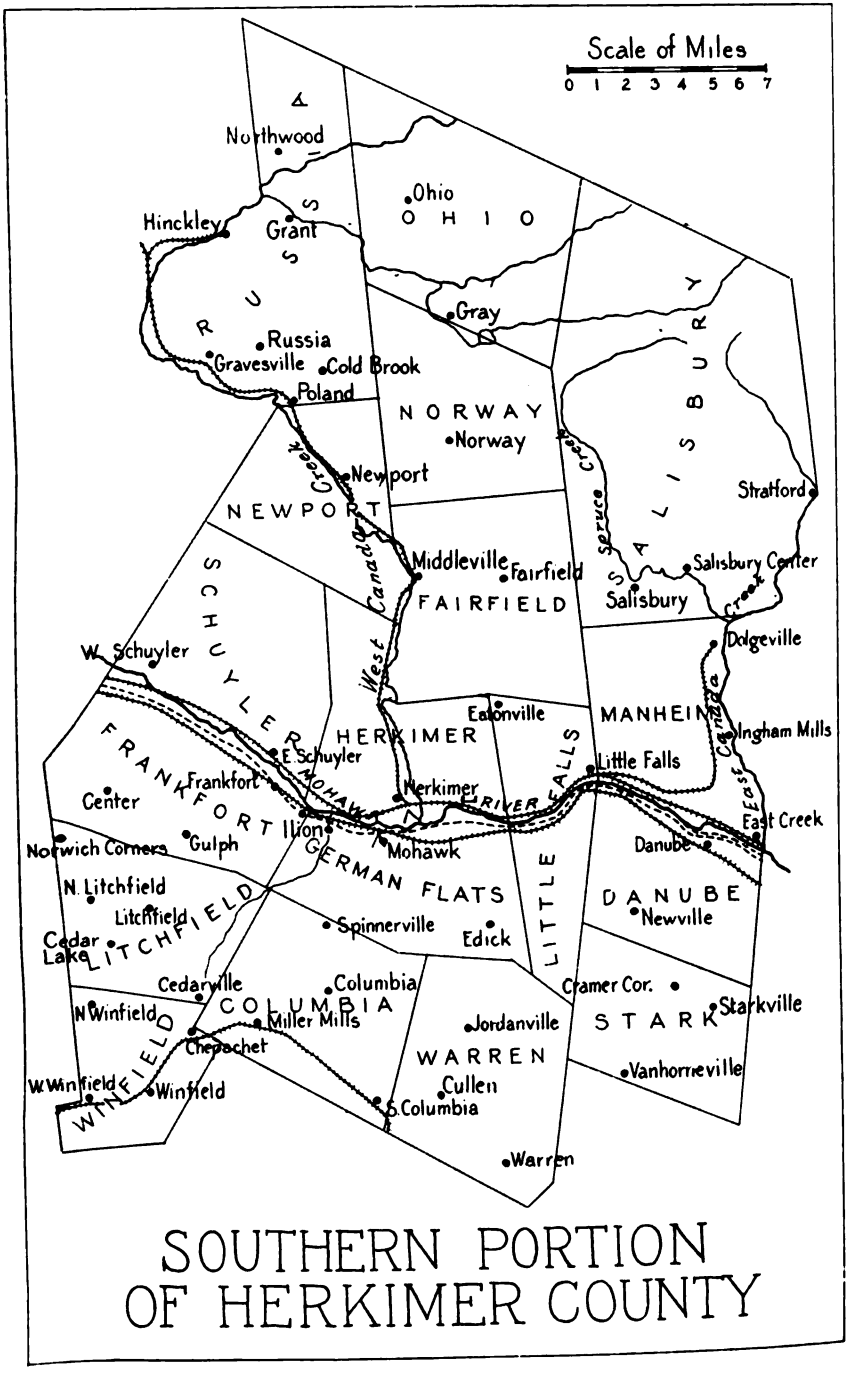
General occupation. Jefferson county is unique in several particulars, archeologically speaking, and contains numerous sites of villages and strongholds, all of which are plainly of precolonial occupation. An earlier Iroquoian people, who are identified as the Onondaga, lived within the county for a considerable period of time, leaving numerous traces of their former presence. The principal center of this occupation is in the area about Rutland Hills, east of Watertown, where many large collections of relics have been made.

Jefferson county early attracted the attention of antiquarians and E. G. Squier paid particular attention to the earthworks and made surveys and drawings of the more important known to him. Later Franklin B. Hough described the earthworks and antiquities of the county and recorded considerable about them in his history of Jefferson county.

Before the Iroquoian-Onondaga came here, however, an Algonkian people had settled in various parts and another nation that made bird-amulets and monitor pipes had settlements. One important site of this character is near Three Mile bay where there are stone graves and burials. Still another people at one time occupied fishing camps and left relics very similar to those used by the Eskimo. The county with its long shore line, many bays and numerous streams provided an attractive dwelling place where agriculture could be carried on and fish and game secured, but in the hilly region back from the lakes fortified strongholds could be built in times of invasion.

Plate 175


NORTHERN PORTION
HERKIMER COUNTY
Beaver R
Beaver
Big Moose
Fulton Chain of Lakes
Fulton Chain
Old Forge
Moose River
McKeever
State House
Black River
N Wilmurt
Nobleboro
Wilmurt
Wilmurt Corners
Scale of Miles
0 1 2 3 4 5 6 7



SOUTHERN PORTION OF HERKIMER COUNTY

Plate 177

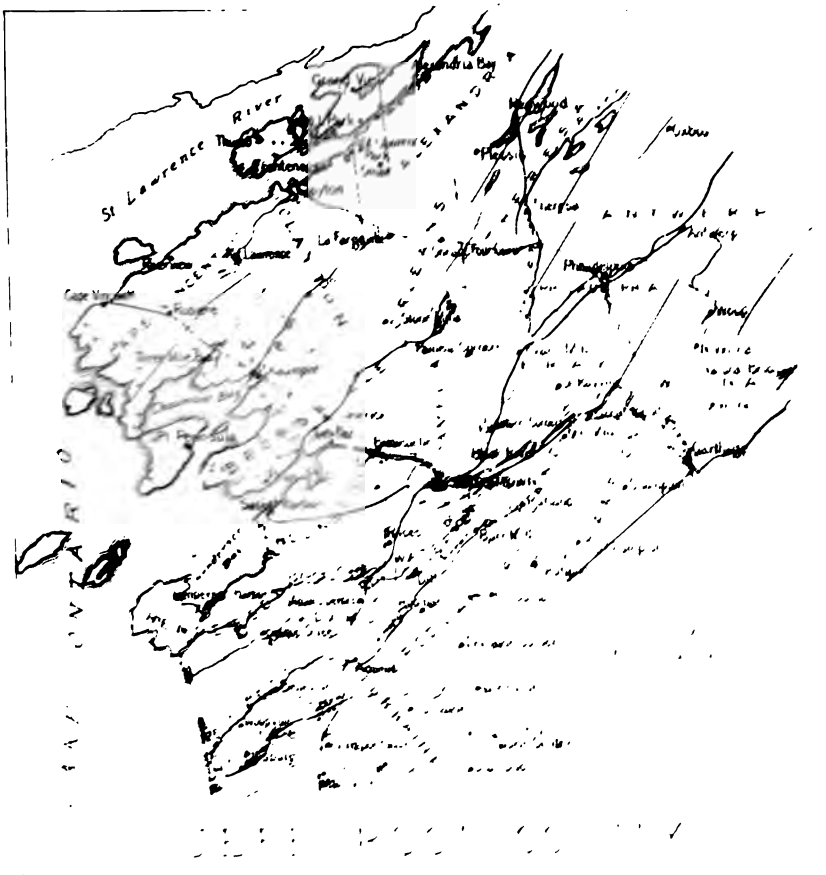
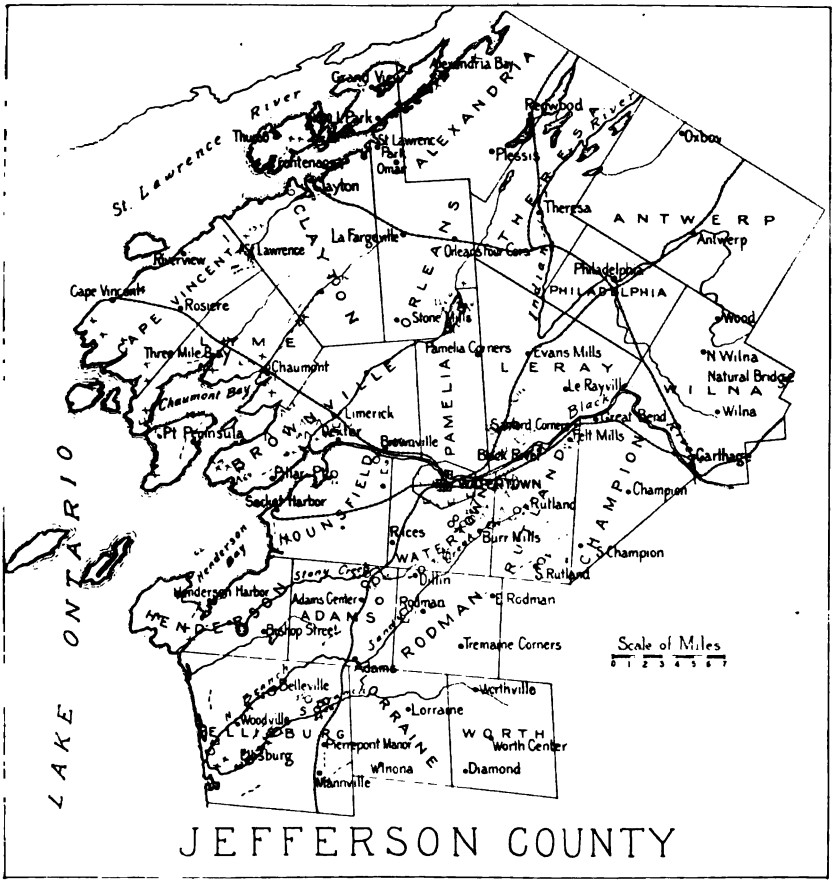

St Lawrence River
Alexandria Bay
Watertown
Ogdensburg
Massena
Potsdam
Canton
Malone
Plattsburgh
Lake Champlain
Burlington
Rutland
Bennington
Albany
Troy
Schenectady
Utica
Rome
Oneida Lake
Syracuse
Oswego
Lake Ontario
Rochester
Buffalo
Niagara Falls
Lake Erie
Jamestown
Elmira
Binghamton
Oneonta
Cooperstown
Hudson River
Catskill Mts.
Adirondack Mts.
Green Mts.
Berkshire Hills
Finger Lakes
Seneca Lake
Cayuga Lake
Canandaigua Lake
Keuka Lake
Chautauqua Lake
Allegheny River
Susquehanna River
Delaware River
Mohawk River
Genesee River
Lake George
Lake Champlain
Saratoga
Glens Falls
Hudson
Poughkeepsie
Newburgh
Kingston
Middletown
Monticello
Ithaca
Auburn
Geneva
Corning
Hornell
Olean
Dunkirk
Lockport
Medina
Batavia
Canandaigua
Penn Yan
Watkins Glen
Hammondsport
Sackets Harbor
Cape Vincent
Tupper Lake
Saranac Lake
Lake Placid
Ausable Chasm
Whitehall
Fort Ticonderoga
Bolton Landing
Lake George Village
Saratoga Springs
Schuylerville
Cohoes
Rensselaer
Hoosick Falls
Bennington
Manchester
Rutland
Middlebury
Vergennes
Burlington
Plattsburgh
Malone
Massena
Ogdensburg
Watertown
Alexandria Bay
Clayton
Gouverneur
Canton
Potsdam
Norwood
Ogdensburg
Morristown
Brockville
Prescott
Gananoque
Kingston
Belleville
Trenton
Picton
Napanee
Deseronto
Tweed
Madoc
Bancroft
Peterborough
Lindsay
Port Hope
Cobourg
Colborne
Brighton
Campbellford
Norwood
Havelock
Marmora
Stirling
Wellington
Picton
Bloomfield
Consecon
Milford
Cherry Valley
Sharon Springs
Richfield Springs
Cooperstown
Oneonta
Sidney
Delhi
Hancock
Deposit
Owego
Waverly
Sayre
Athens
Towanda
Wyalusing
Montrose
Susquehanna
Binghamton
Endicott
Johnson City
Vestal
Owego
Candor
Spencer
Van Etten
Waverly
Elmira
Horseheads
Big Flats
Corning
Painted Post
Addison
Wellsville
Andover
Alfred
Almond
Canisteo
Hornell
Arkport
Hammondsport
Bath
Avoca
Prattsburgh
Naples
Canandaigua
Victor
Fairport
Pittsford
Brighton
Rochester
Irondequoit
Webster
Penfield
Ogden
Parma
Greece
Gates
Chili
Wheatland
Scottsville
Mumford
Caledonia
Avon
Geneseo
Dansville
Nunda
Portageville
Mount Morris
Leroy
Batavia
Alexander
Darien
Corfu
Akron
Clarence
Amherst
Tonawanda
North Tonawanda
Lockport
Medina
Albion
Holley
Brockport
Spencerport
Hilton
Webster
Penfield
Irondequoit
Rochester
Fairport
Pittsford
Victor
Canandaigua
Naples
Prattsburgh
Bath
Hammondsport
Arkport
Hornell
Canisteo
Almond
Alfred
Andover
Wellsville
Addison
Painted Post
Corning
Horseheads
Elmira
Van Etten
Spencer
Candor
Owego
Vestal
Johnson City
Endicott
Binghamton
Susquehanna
Montrose
Wyalusing
Towanda
Athens
Sayre
Waverly
Deposit
Hancock
Delhi
Sidney
Oneonta
Cooperstown
Richfield Springs
Sharon Springs
Cherry Valley
Milford
Consecon
Wellington
Stirling
Marmora
Havelock
Norwood
Campbellford
Colborne
Cobourg
Port Hope
Lindsay
Peterborough
Bancroft
Madoc
Tweed
Deseronto
Napanee
Picton
Trenton
Belleville
Kingston
Gananoque
Prescott
Brockville
Morristown
Ogdensburg
Norwood
Potsdam
Canton
Gouverneur
Clayton
Alexandria Bay
Watertown
Ogdensburg
Massena
Malone
Plattsburgh
Burlington
Vergennes
Middlebury
Manchester
Bennington
Hoosick Falls
Rensselaer
Cohoes
Schuylerville
Saratoga Springs
Lake George Village
Bolton Landing
Whitehall
Fort Ticonderoga
Ausable Chasm
Lake Placid
Saranac Lake
Tupper Lake
Cape Vincent
Sackets Harbor
Hammondsport
Watkins Glen
Penn Yan
Canandaigua
Geneva
Auburn
Ithaca
Cayuga Lake
Seneca Lake
Finger Lakes
Berkshire Hills
Green Mts.
Adirondack Mts.
Catskill Mts.
Hudson River
Delaware River
Susquehanna River
Allegheny River
Chautauqua Lake
Keuka Lake
Canandaigua Lake
Lake Champlain
Lake George
Genesee River
Mohawk River
Oneida Lake
Lake Erie
Lake Ontario
Niagara Falls
Buffalo
Rochester
Syracuse
Utica
Rome
Schenectady
Troy
Albany
Saratoga
Glens Falls
Hudson
Poughkeepsie
Newburgh
Kingston
Middletown
Monticello
Jamestown
Olean
Dunkirk
Lockport
Medina
Batavia
Canandaigua
Penn Yan
Watkins Glen
Hammondsport
Sackets Harbor
Cape Vincent
Tupper Lake
Saranac Lake
Lake Placid
Ausable Chasm
Whitehall
Fort Ticonderoga
Bolton Landing
Lake George Village
Saratoga Springs
Schuylerville
Cohoes
Rensselaer
Hoosick Falls
Bennington
Manchester
Rutland
Middlebury
Vergennes
Burlington
Plattsburgh
Malone
Massena
Ogdensburg
Watertown
Alexandria Bay

Plate 177


St. Lawrence River
LAKE ONTARIO
Grand View
Alexandria Bay
Redwood
Thousand Islands
Oxbox
Clayton
Theresa
ANTWERP
Antwerp
Philadelphia
PHILADELPHIA
Wood
N Wilna
Natural Bridge
WILNA
Wilna
Carthage
Champion
Rutland
Burr Mills
Champion
Rutland
Dillin
E Rodman
Rodman
Tremaine Corners
Scale of Miles
0 1 2 3 4 5 6 7
Adams
Northville
Lorraine
Woodville
Pierrepont Manor
Worth Center
Diamond
Winona
Mannville
Belleville
Pillsburg
Adams Centers
Bishop Street
Henderson Harbor
Henderson Bay
Cape Vincent
Rosiere
Three Mile Bay
Chaumont
Chaumont Bay
Pt Peninsula
Pillar Pt
Sackett Harbor
Limerick
Dexter
Brownville
Pamelia Corners
Stone Mills
Evans Mills
Le Rayville
Black River
Sanford Corners
Felt Mills
Natural Bend
Stony Creek
Watertown
Black River
Indian River
Orleans
Four Corners
La Fargeville
St Lawrence
Riverview
Plessis
Paul Omar
Thousand Islands
Lerays
Pamelia
Brownville
Hounsfield
Champion
Rodman
Adams
Worth
Wellesley Island
Cape Vincent
Henderson
Clayton
Alexandria
Orleans
Lerays
Wilna
Champion
Watertown
Rutland
Adams
Worth
Wellesley Island
JEFFERSON COUNTY

Village site on both shores of Perch lake and on Linnells
There are more than two hundred remains of earth huts.
relics have been called the " Perch lake mounds." The occu-
is pre-Iroquoian.
Earthwork of the usual type in Hounsfield on the shore of
River bay, between Muskallunge creek and Storr's harbor
gh, p. 11). It was 2½ miles from Sacketts Harbor.
A work in Hounsfield 2 miles from Brownville (Hough, p.

An ossuary near Brownsville on Black river, 12 feet square
deep (Squier, p. 29). Hough mentioned this and said ossu-
were frequent.
Burial place on the Wilder farm in Brownville.
Burial place on the Minard farm, Dexter, in the township of
ville. This and the previous site reported by Horatio Waltz
ter. This is 1½ miles south of Limerick.
Village site on the Reeves farm near Dexter, in Brownville
ip.
Village site in Brownville at Black River bay.
Burial place in a natural mound on the Elmer Everett farm in
Hounsfield, 2 miles from Brownville.
Ossuary in Rutland 3 miles east of Watertown was on a hill-
nd covered with large stones. Below there was a pit 6 feet
by 4 feet deep, filled with human bones (Squier, p. 29).
Burial place on the J. C. Coligan farm in Rutland.
Earthwork one-half of a mile west of Black River village and
of the river. It was nearly square but with rounded angles.
was one gate and the area was 1¼ acres. This was in Le Ray.
ons were found and the usual relics (Squier, p. 25, pl. 3, no.
is plan is given in figure 79). One figured and described by
ough is said to be the same and is on Aaron Poor's land. The
ter is 14 rods. There are fireplaces within and without and a
ery (Regents Report, 1851, p. 101, fig. 1). His plan differs
from Squier's.
Earthwork described by Hough on Matthew Parkison's land.
north of this, south of West creek. There are fireplaces
and without the walls (Regents Report, 1851, p. 101, fig. 2).
Earthwork in Le Ray four miles northwest of the work near
River village was a lozenge-shaped work, the most regular
quier had seen in New York. There were two gates, and a

considerable interval along a steep bank. Skeletons were found, and the usual relics (Squier, p. 26, pl. 4, no. 1).

25 Earthwork larger than the one previously described was 3 miles west of the last and near Sanfords Corners. There were graves and relics (Squier, p. 27, pl. 4, no. 2). This work appears in figure 54. It is now a garden spot.

26 Burial place 1 mile south of Felts Mills. Several other obliterated sites were known in Le Ray.

27 Village site reported by J. S. Twining is situated on a hill in Carthage.

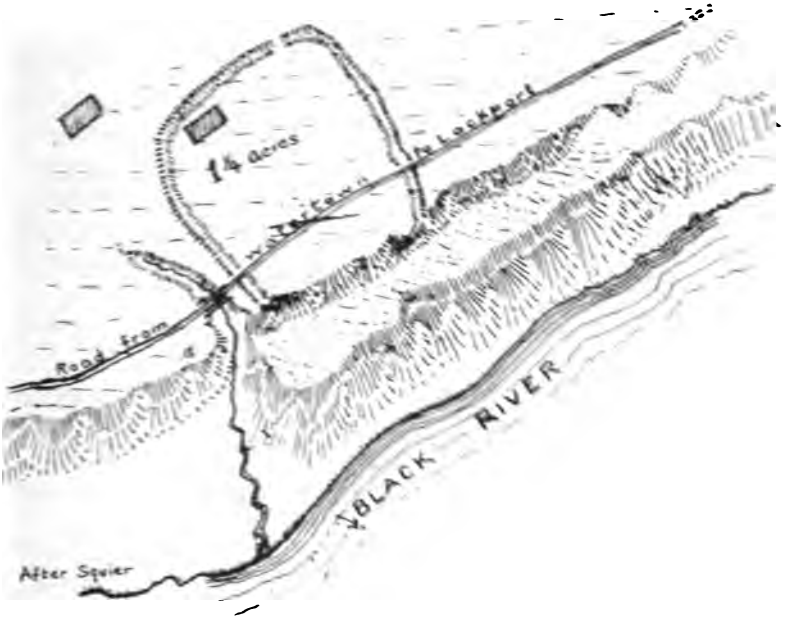


Fig. 77 Walled inclosure one-half of a mile west of Lockport, Jefferson county (after Squier)

28 Village site with stone hearths nearly a mile north of Burr's Mills (Squier, p. 23). This was on the Woodruff farm.

29 Village site on the Gifford farm 2 miles northwest of Burr's Mills. Eight circular lodge sites are reported. This is probably now on what is the Morris Gragg property.

30 Village of fifteen circular lodges on O. Butterfield's place a mile west of East Watertown and on the north side of Rutland hollow. Village sites in this vicinity were reported by Henry Woodworth.

31 Village on land of Mrs Woodworth and Mr Stewart a mile southwest of East Watertown. Stone and clay pipes and beads have been found.

32 A cemetery and an earthwork are on the terrace 2½ miles southeast of Watertown (Squier, p. 22, pl. 2, no. 2).

33 Hough reported two works on lot 29 one-half of a mile farther and another quite near. The one on Asa Goodnough's land had three gates. A few rods off was a smaller circular work. (Regents Report, 1851, p. 104, fig. 7.)

34 Burial place at Talcott Stand, Watertown.

35 Burial place on the Rodman Staples farm near Watertown.

36 Burial place on the Wadley farm near Watertown.

37 Earthwork on a bluff one-half of a mile west of Burr's Mills has bone and stone beads, with the usual relics. There is a bank across the bluff (Squier, p. 22, pl. 3, no. 1).

38 A curving bank across a ridge on lot 31 one-half of a mile east of Burr's Mills was one-fourth of a mile from the Rutland line (Hough, p. 11). It was on the Lampson farm (Regents Report, 1851, p. 104, fig. 6). This site is now on the Morris Gragg estate.

39 Village site on the Tredway farm in Rutland.

40 A village of fifteen circular lodges one-half of a mile north of East Watertown.

41 Village on the Howland place 1 mile east of East Watertown.

42 Clay pits and fireplaces on the Durham place 1¼ miles east.

43 Village on the Fulton place 1½ miles east.

44 Village on the Normander farm 1 mile east of East Watertown. "This had thirty lodges."

45 Earthwork on the Allen place south side of Rutland hollow with many skeletons suggesting recent occupation (Squier, p. 24, pl. 3, no. 2). This was on the old Tamblin farm (Hough, p. 13). The site has been referred to several owners (Regents Report, 1851, p. 102, fig. 3).

46 There was a work near Tylerville (South Rutland post-office) in Rutland (Hough, p. 13).

47 Circular work on Dry hill, town of Watertown, is 5 miles south of that city and 2 miles north of a work near Appling. The area is 8 acres. It was of long occupation and relics were abundant. A cemetery lay a little north (Squier, p. 20, pl. 2, no. 1).

48 Earthwork on a high terrace in Adams has seven gates and many caches. It is in the northeast part of the town and there were graves just outside the walls (Squier, p. 17, pl. 1). "Near Appling on D. Talcott's farm" (Hough, p. 11).

49 Large earthwork is 1½ miles southeast of this on a hill, one side of which is steep. A semicircular bank protected the sloping side.

50 At the head of Henderson bay is a curved stone bank just above the water called Indian wharf. A trail ended there (French, p. 358).

51 A work on Heath's farm, lot 25, near the west line of Rodman contained 3 acres. It was on the north bank of North Sandy creek above the forks (Hough, p. 12). This site was explored by M. R. Harrington for the Harvard-Peabody Museum.

52 Earthwork 2 miles north of Adams (Hough, p. 12).

53 Earthwork, semicircular, was over one-half of a mile northwest of Adams village on W. Benton's land and was 500 feet wide. The open part was toward marshy land and there were two or three gateways (Squier, p. 28, 29). This seems the one mentioned by the Rev. John Taylor in 1802.

54 Earthwork 3 miles northwest of Pierrepont Manor with an area of 1½ acres. It was mainly an ellipse except where an opening was defended by a stream. There were two gates (Squier, p. 27, pl. 4, no. 3).

55 Similar but larger earthwork three-fourths of a mile east of the last and 2½ miles northwest of Pierrepont Manor. Caches and skeletons were found (Squier, p. 28, pl. 4, no. 4).

56 Earthwork about 1 mile south of this group on Mr Mendall's land (Squier, p. 28). He mentioned another at Clark's settlement.

57 Village near Pierrepont Manor with pottery and many burials.

58 Earthwork with several gates near Belleville on P. Durfy's farm. This is in Ellisburg, on North Sandy creek. One side is naturally defended (Hough, p. 12).

59 Ossuary in Ellisburg nearly opposite the old fort on South Sandy creek and near J. W. Ellis's house (Hough, p. 14).

60 Earthwork on the south bank of Sandy creek 3 miles from the lake. One side is naturally defended. There are several small sites in the town and undescribed open villages (Hough, p. 13).

61 Earthwork, irregular, crescent-shaped, of 2 acres, was in the cemetery at Ellisburg 4 miles from the mouth of South Sandy creek.

62 Stockade site on Snowshoe island outside of Sacketts Harbor (Squier, p. 29).

63 Earthwork 5 miles from Watertown on the road to Evans Mills was nearly circular and had several gates. It was at San-

fords Corners, on a branch of West creek (Regents Report, 1851, p. 103.) This may be the same as 25.

64 Earthwork on lot 2 in the northwest corner of Rodman is near J. Freeman's. There is a double bank inclosing a crescent-shaped area. It is about 6 miles from Watertown on a stream at the source of Stony creek (Regents Report, 1851, p. 103, fig. 8).

65 Earthwork described by the Rev John Taylor was in the forks of the Sandy creeks and near the lake.

66 Village, prehistoric Iroquoian, at the mouth of Perch river on the west side. It occupies several acres but the occupation is scatfound. The ashes were quite deep in spots. Few stone articles were found, but many of bone and much pottery. Near the water were fishing camps of a different character.

67 Camps on two points west of Chaumont and south of Chaumont river. Pottery with conventional faces is abundant. One small fragment has a face like those of Onondaga and is an important discovery.

68 Camps occur on Long Point on the north side of Point peninsula. The pottery is old and crude.

69 Village site at the west end of Pillar Point, with ashes and pottery.

70 Camp site with flint knives and arrowheads east of the stream and half way between Chaumont and Depauville.

71 Camp sites with arrowheads and broken pottery on the Indian river in the village of Theresa. In 1898 a fine and perfect clay vessel was found in a rock cave above the falls. It is now in the State Museum (see plate 27).

72 Large village on west branch of French creek, one-fourth of a mile south of St Lawrence village. Pottery and bone implements with few stone articles. Across a small stream are refuse heaps, in which a small double-pointed bone harpoon was found by Dr R. W. Amidon. On the other side Dr A. A. Getman found a barbed bone fishhook without a knob.

73 Camp site nearly a mile northeast, on which arrowheads and pottery were formerly found. This is on the north side of the road. A similar site was less than a mile beyond, but south of the road.

74 Village site on the end of Point Salubrious, near Chaumont. Pottery and pipes have been found.

75 Camp on Long point. The pottery is mostly old and crude, but Doctor Beauchamp found here some so indented within as to produce a boss without.

Plate 178



76 Fishing camps on south shore and southwest of head of "Long carrying place." Old and crude pottery.

77 Camps near Three Mile Point.

One of the interesting features of Jefferson county is the immense amount of pottery found in fragmentary condition. Perhaps not more than four complete vessels have been found in the region. Complete pottery pipes are rare but a good many have been found, perhaps four hundred in all. The greater abundance, however, are found broken and with the parts missing. Several collectors have restored pipes where the bowl was complete by using stems from other pipes which fitted at the point of fracture.

Kings County

List of Sites

1 *Cache of stone* and flint blades found at the Narrows in 1837. Furman says that the quantity was a wagon load.

2 *Camp site.* "A barren sand hill in Brooklyn in 1826 was covered with vitrified and decomposed stones. From 1½ to 4 feet below the surface was a layer of ashes and cinders with broken clay pipes, coarse pottery and arrowheads" (Furman, p. 98).

3 *Shell heaps.* There are immense shell heaps at Canarsie or Flatlands, and on Bergen island (Thompson, p. 66).

4 Burial place in South Brooklyn found in 1897 on Avenue U, and near Ryder's pond and Sheepshead Bay. "Deep beds of oyster shells had the outer side of the shells uppermost. Pottery was found and over a dozen skeletons. There were a few other shells and fragments of bone" (Amer. Arch., 1898).

There is little recorded concerning the archeology of Kings county the early erection of town and villages over its area soon blotting out aboriginal traces. Without doubt, however, it was occupied in nearly every part, and once was an important place of Indian travel and traffic.

Lewis County

List of Sites

1 Burial place on the Kinsman farm, Martinsburg. Skeletons and pipes were found.

2 Village site on the east bank of Black river across from Deer River station where there are now many very old hut rings. Stone gouges, arrowheads and spears have been found.

3 Village site at Gate's millyard is 2 miles above.

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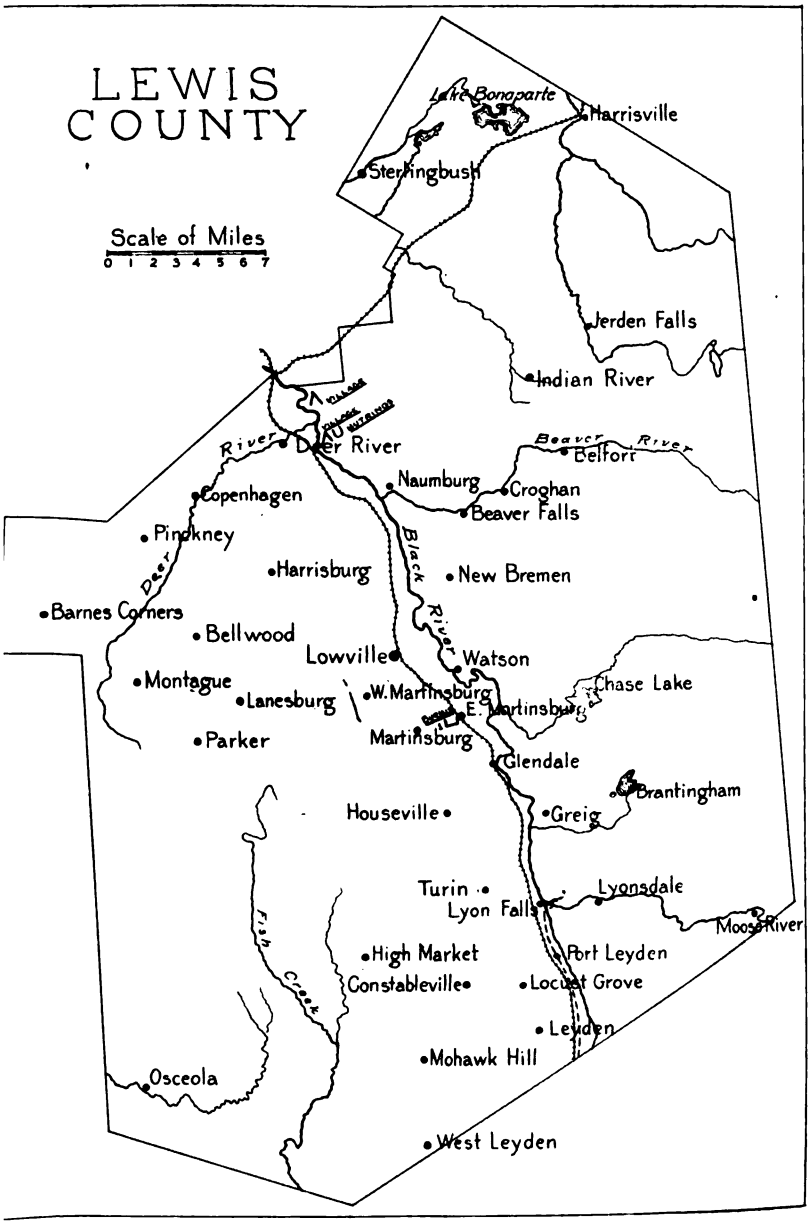
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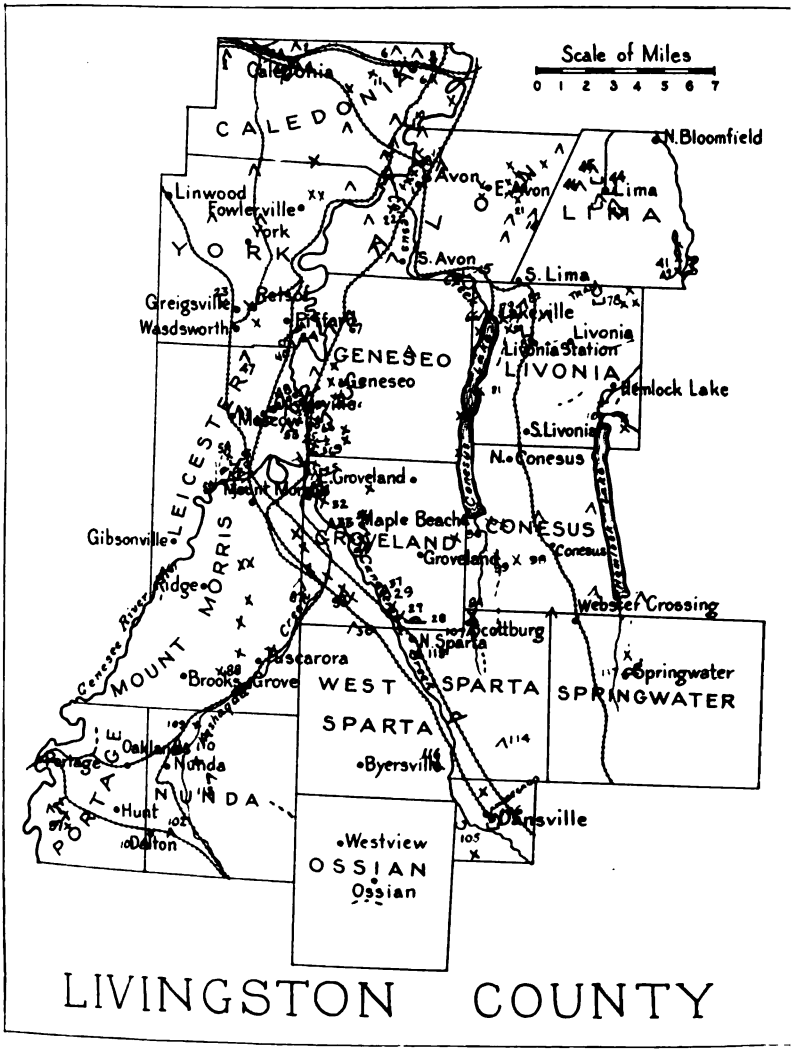
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Plate 179



Plate 180


LEWIS
COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
Lake Bonaparte
Harrisville
Sterlingbush
Jerden Falls
Indian River
Deer River
Beaver River
Belfort
Naumburg
Croghan
Beaver Falls
Copenhagen
Pinckney
Harrisburg
New Bremen
Barnes Corners
Bellwood
Lowville
Watson
Montague
Lanesburg
W. Martinsburg
E. Martinsburg
Chase Lake
Parker
Martinsburg
Glendale
Brantingham
Houseville
Greig
Turin
Lyon Falls
Lyonsdale
Moose River
High Market
Port Leyden
Constableville
Locust Grove
Leyden
Mohawk Hill
Osceola
West Leyden
Black River
Deer River
Fish Creek


Scale of Miles
0 1 2 3 4 5 6 7
CALEDONIA
Caledonia
N. Bloomfield
Avon
E. Avon
Lima
LIMA
Linwood
Fowlerville
York
YORK
S. Avon
S. Lima
Greigsville
Wadsworth
Retsof
Piffard
Lakeville
Livonia
Livonia Station
LIVONIA
GENESEO
Geneseo
Hemlock Lake
S. Livonia
N. Conesus
Groveland
Mount Morris
Maple Beach
CONESUS
Gibsonville
Groveland
Conesus
Ridge
Webster Crossing
Scottsburg
N. Sparta
Oscarora
Springwater
Brooks Grove
WEST SPARTA
SPARTA
SPRINGWATER
Oakland
Nunda
Byersville
PORTAGE
NUNDA
Hunt
Dalton
Dansville
Westview
OSSIAN
Ossian
Genesee River
LIVINGSTON COUNTY

Livingston County

If Ontario county was the most important area in the life of the prehistoric Seneca, Livingston county was the most important in the history of the Seneca of the later colonial period. In Livingston county, after the destructive results of the French raids, the Seneca Indians found their chief refuge. The Genesee valley, with its fertile flats, invited them to renew activities in lines of agriculture, and their towns and hamlets were scattered the length of the valley, especially on the eastern side. Here are found the villages of Canawagus, Geneseo, Little Beards Town, Big Tree, Duydosot, Ganyuhsas, Ganadachioragou, Keint-he, Ganasegago, Ohagi, Squawkie Hill, Nunda and many other of their important towns. A number of sites having no known designation are known to archeologists.

Before the Seneca reached this fertile and inviting region other nations had dwelt there, drawn to it without doubt by the same considerations that made it attractive to them. Scattered all through the valley, on either side of the river, are the remains of the villages of an older people. Relics of the mound-building Indians are not uncommon while at various points are found evidences of an Algonkian occupation. Still earlier sites are found that yield relics in every way similar to those used by the Eskimo, and at other points are camp sites and pits made by a people unknown to either history or archeology.

Among the more interesting sites connected with the mound-building culture may be mentioned that situated on Squawkie hill on the old Squawkie Hill Reservation tract. Here, at some remote time, the mound-building Indians had a village and here today are found several mounds. Three mounds arranged on the points of a triangle are to be seen near the home of John F. White, the present owner of Squawkie hill. These mounds contain graves stoned up and those which have been opened by Mr White yielded pearls, beautifully formed monitor pipes, large and well-shaped flints, copper implements and other articles used by the pre-Iroquoian peoples. In later years, just before the Revolutionary War, the Seneca had a village of captive Squawkie Indians upon the hill. It seems quite likely also that Indians of this same culture occupied a site near the present Craig colony where Mr. Crofoot has discovered numerous relics, including crude axes and bell pestles. Many of the later Seneca sites also are built near or directly upon village sites and camps of the earlier occupation.

The earthworks and hilltop strongholds of the county are interesting and will well repay examination; one of these is situated on lot 27, in the town of Avon, on an eminence overlooking Conesus creek. Another famous fort of this type is situated in the village of Dansville, where numerous relics have been discovered.

When General Sullivan entered this region he found it a garden spot with well-constructed villages and little hamlets dotted throughout the region. There were immense tracts of corn land, hundreds of acres of produce under cultivation and many extensive orchards. These were destroyed by the soldiers, many of whom have left us complete accounts in their journals.

In Livingston county the Seneca Indians made their last stand against the pressure of civilization. Here it may be said they were thrown from their primitive state into a more direct touch with the white men's civilization. It was in this county that their nation was disrupted and fled in scattered bands to the protection of the British guns at Fort Niagara. A few of them lingered and perhaps for fifty years there were small and scattered settlements in remote parts of the valley, but eventually they withdrew to their outlying settlements in Cattaraugus and Erie counties where they again attempted to set up a semblance of their old life.

List of Sites

1 Village site, Dyu-ne-ga-no, situated in the present village of Caledonia. A considerable quantity of relics have been found here.

Doty in his history of Livingston county says: "To the east and south of the Indian town lay oak openings where the Senecas pastured their rough-coated ponies, to the southwest a grove of wild plum trees and grape vines on forest-grown trellises opened before the natives supplying them with fruit, while the waters of the spring afforded trout and other fine fish in abundance. Standing near the westerly border of the spring was the fatal post to which condemned prisoners were fastened for torture. . . . The Indian burial place was located about 20 rods northeast of the spring, where, in digging wells and cellars, bones in abundance have been found."

2 Camp site east of Lime Rock where many notched points have been found.

3 Mound now destroyed, cited by Squier, was 3 miles south of the Wheatland Forks. The mound contained human bones.

4 Camp or small village site in Caledonia on the Loewing farm about 1 mile west of Canawagus. The occupied ground lay along a

small creek and embraced about 4 acres. Flints, celts, drills, slate objects and pestles have been found, but no pottery.

5 Village site in Caledonia on lots 78 and 79, on the Wadsworth property, on both sides of Dugan creek and north of the New York Central Railroad tracks. Flints, celts, sinew stones, gouges and steatite fragments have been found but no metal or bone implements or triangular arrow points have been discovered.

6 Large village of stone age located on Wadsworth farm known as Farrell farm at Honeoye Junction on New York Central Railroad west of West Rush, also on Penny farm, the two sites without doubt being in connection with each other. This is located on a knoll rising from the river flats and bounded on the south by Dugan creek's soil of gravel and sand and very stony.

Surface produces arrow points, pestles (plentiful in the past) celts and hammerstones; no pottery or pipes, no refuse heaps or evidence of lodges, no burials in immediate vicinity, the burial ground in connection with 7 being perhaps used. (Follett.)

7 Located to the northwest of 6 about one quarter of a mile on higher ground which gradually rises to the west and northwest. Here have been found a great many of the celt gouges which are very rare on other sites. A fine large spring is on the southeast corner of this site, and between this and 6. Surface findings consist of gouges, celts and arrow points. Mr Ferrill possesses a very fine specimen of a sinew stone found here.

Considerable digging was carried on in the gravel bank in 1913 for potsherds by a special collector of Rochester, several pieces being found. This was probably some of the refuse heap which must have existed at such a large village as is evident. The surface does not yield a sign of pottery of any description. A burial ground was in the gravel pit to the east of the site and has been entirely excavated by the railroad company for ballast. No records of the burials are obtainable. Described by Squier as containing earthworks, and is probably 6, accounting for the peculiar shape of the knoll, but is probably natural. (Follett.)

8. A description by Kirkland of two sites containing earthworks, places them 2 miles west of Allen's residence and Allens creek, on both sides.

9 There is a burial site along the creek just west of the Pennsylvania Railroad nearly opposite a spring. This site is in the town of Caledonia.

10 Village site on the Simmons farm one-half of a mile of Canawagus in the town of Caledonia and on lots 78.

Mr Follett identifies this as a pre-Iroquoian site but says that no pottery is found. The principal points of occupation on the tract, which embraces about 16 acres, are between Scottsville road and the Genesee river and on both sides of White creek.

11 Camp site on Maxwell farm near Maxwells station.

A few years ago a boy fishing in the swamp near here caught his hook under a log and in dislodging it discovered a cache of about five hundred arrow points. Mr Maxwell has about one-half of a bushel of arrow points which he has gathered from the village site, some of which are very fine and extra long. Bones were plowed up several years ago but no excavating has been done.

12 Village site on farm of James Cullings, west of and near the above. Arrow points numerous and large size.

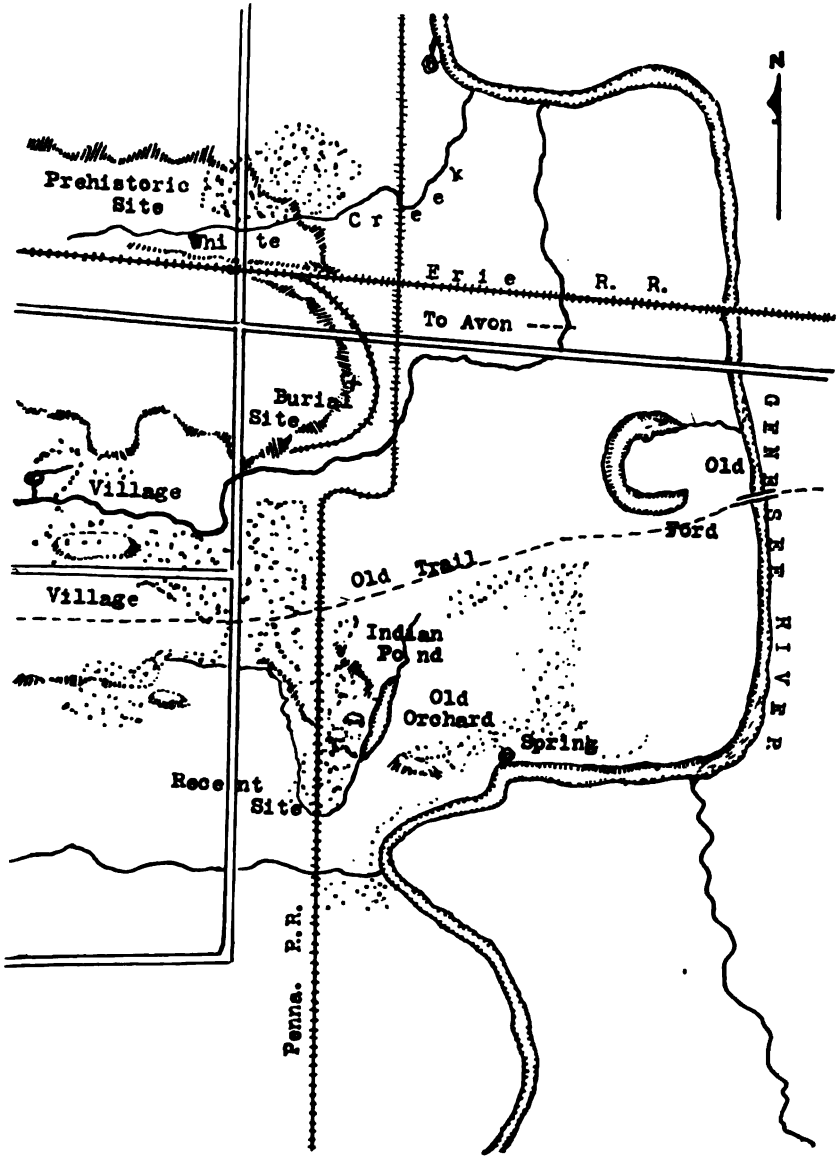
13 Burial site on Street farm north of Canawagus, said to be composed of soldiers of colonial days. A barracks was located there, the soldiers of which were nearly exterminated by disease. It is also the burial spot of the Bakers, a noted band of outlaws, according to W. J. Maxwell, who states his father, an old resident of the territory, has repeated to him many times. He can remember when the depressions showed in the ground marking the spot of each grave. (Follett.)

14 Burial site, just west of the Pennsylvania tracks, three-fourths of a mile north of 11, unearthed when the Genesee Valley canal was built. Several skeletons exhumed, said to be of large stature. W. J. Maxwell states his father was one of the workmen at the time and he remembers there was found a lower jaw large enough to be inserted over the outside of his. (Follett.)

15 Village site on lot 127 in the town of Avon on the Wadsworth property. This is the site of the old Indian fort described at Bosley's Mills. It is situated upon an eminence between two streams that empty into Conesus creek. The site embraces about 2 acres and excavations conducted by Mr Crofoot show a recent occupation. Flints, celts, bone and shell articles have been found intermixed with sheet copper, iron axes and glass beads. Large amounts of iron have been found here.

16 Village site on the Cleary farm in the southeast part of the town of Avon, near the Lima town line. The site embraces about 15 acres and is situated on lots 85 and 87. There is evidence of long occupation, the ground being much stained by village refuse. The site lies north of a small stream and east of the road running south from the Avon-Lima road. Most of it is situated on a gently sloping hillside. Triangular arrow points and the usual Iroquoian type of

Plate 182



Sketch map of the Canawagus site 10, opposite Avon (after Follett)

elics have been found, together with copper and iron articles. The te has been identified with the Seneca village of Dyudosot, which as destroyed in 1687.

Mr Follett's notes give the following:

"A large and important village located on the farm of John leary south and east of Dutch hollow and very close to the town ne of Avon and Lima and bounded on the south by the state ditch hich drains south Lima swamp. There is considerable controversy to the identity of this site. Doty identifies this site as Dyo-du-e-sot, or at the spring. The spring is an unusually large one located the northwest of the site, as it is divided by a small knoll and nces at the present time. There is also a spring on the south edge the site, and the ditch now maintained by the State must have en a good stream of water in the days of habitation of this village.

"Old residents say that when this field was first plowed it yielded on axes by the wagon load and which is undoubtedly so, as similar es are described heretofore. Doty claims destroyed by the arques DeNonville, but do not find any other mention of it in story.

"Surface yields large quantities of Jesuit beads, shell beads, tched arrows (small quantities). The small triangle points are merous, copper and brass points, brass awls, bone awls, bears' eth, cylindrical brass beads, iron axes, brass pendants. I have und two of the grooved stones on this site which are described in ate books and are very rare. Large quantities of clay pipe stems e found on the surface, some whole ones have been found.

"The refuse heap is located on the north side of the site on low nd except that there is a small knoll which is evidently formed by e refuse, about fifty feet in diameter about two feet deep in the nter, ashes 18 inches deep has been well dug over and yielded many ne bone awls, pipes, beads, harpoons, bone fish hooks, copper rap and copper beads, parched corn in good condition, animal nes, bear, deer, beaver, dog, and many smaller animal bones ist, also pig teeth. The burial site has been tested for by several, thout results to 1913. On the eastern edge of the site on top of a nd knoll is a white settlers' burial ground bearing some very old tes and epitaphs, probably thirty-five or forty graves. It is pos-ble this was used by the Indians. Tests made in 1914: no burial cated."

17 Village sites on lot 274 in the town of Avon. These are on the iard property one-half of a mile north of Avon village. More than acres are embraced in the tract, which includes earlier and recent

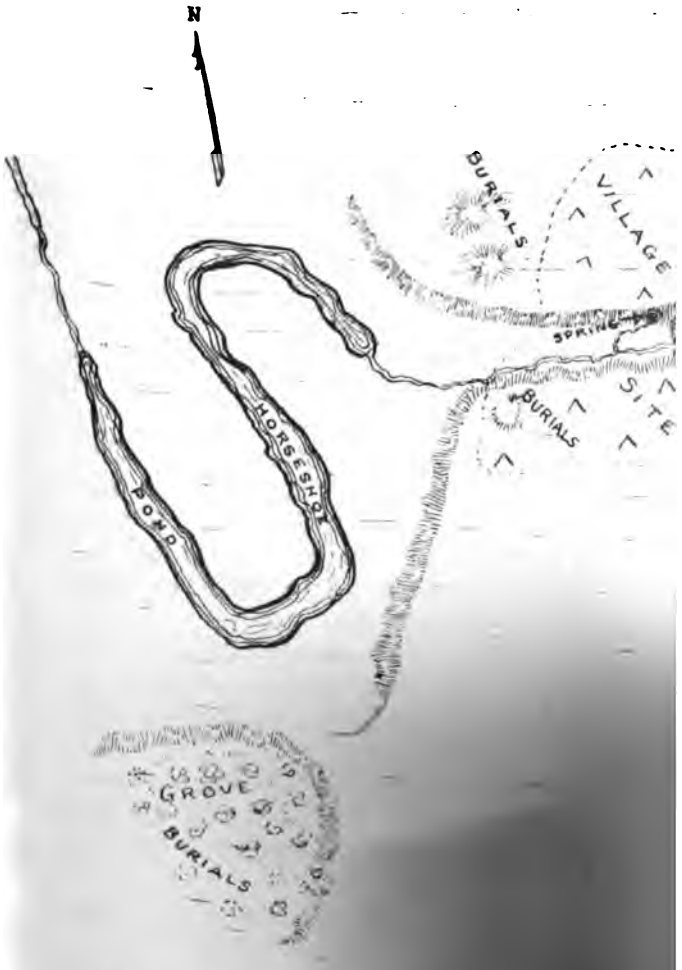
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Plate 183

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it beads, shell
mall triangle point
awls, bone awls,
brass pendants.
e which are descri
ntities of clay pipe
es have been found
rth side of the site
hich is evidently form
about two feet deep
l dug over and yielded
s, bone fish hooks,
n in good condition.
many smaller animal
has been tested for by
rn edge of the site on
ground bearing some
ive or forty graves. It
Tests made in 1914

town of Avon. These
north of Avon village.
, which includes earlier



Sketch map of the Wiard farm

ccupations. Early camps in which gorgets and other slate articles ave been found are situated along a small creek emptying into the d bed of the Genesee west of the Erie Railroad.

18 Village site near the river bridge in Avon. Burials removed veral years ago by Tony Biser. Relics scattered and lost so far as btaining any information of them is concerned.

Surface findings consist of stone age implements except on one te where a few glass beads have been found on a sand knoll where ie burials were removed. Some very fine worked flint arrows are be taken from the surface after plowing has been done each year. elts are abundant compared with other sites, many of which have ie three beveled sides.

A refuse heap was located in 1912 by R. Downing in or a little to ie east of his front dooryard while digging a post hole. It pro- iced animal bones, some glass beads and small pieces of copper, ot extensively worked. A small camp site to the southeast yielding few arrow points, nearer the village of Avon and nearly opposite ie late residence of Hugh Tighe. (Follett.)

19 Village is scattered up and down the banks of the river for out 2 miles. " No pottery or pipes have been found to my knowl- lge."

20 Swamp and muck land where several arrow points have been und in cultivating; could not have been occupied as a camp or illage, and was without question a pond of water in early days. his is east of East Avon by 1½ miles, north of the road.

21 Camp site, flint arrow points in very limited quantities on a ill, 1½ miles south of the former site.

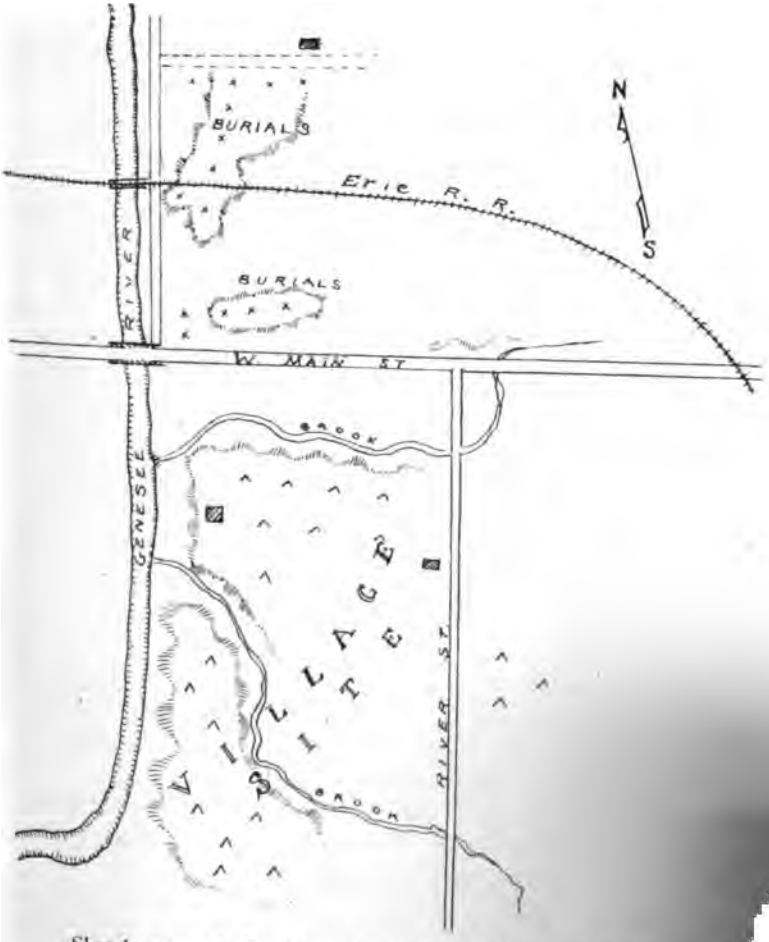
22 Small camp site on the east banks of the Genesee river due est of Ashantes at what is known at Avon as the " high banks," on irm of John Curry or Wadsworth farm. No burials or refuse, and o evidence of much occupation.

Mr Follett thinks there is a village site in the woods to the north hich will be revealed some time in the future when cleared of tim- er and plowed, and that the designated camp site is the south edge f such village.

23 Camp sites in York, on lots 9 and 16 on the salt company's roperty, north of Greigsville. There are about 2 acres in this tract.

24 Village sites on lots 38, 41 and 48 in York on the Wadsworth roperty. This is near Piffard and is the site of Ohagi occupied by uscaroras at the time of the Sullivan raid. There are earlier sites the same locality, especially south of the small creek and east of

Plate 184



Sketch map of the Avon site (after Follett) (Site 18)

ınia Railroad tracks. Gorgets have been found in this

site east side Canaseraga creek opposite Mount Morris.
site north of Groveland station; prehistoric.
site at Groveland station.
ıd was opened here several years ago, contained burials,
t was opened while excavating for road building.
site on lots 31 and 32, Groveland, on the Bean estate,
north of Groveland station. The site embraces about
nd and lies between the north road and Canaseraga
all creek runs through the site. On the north side a
e was found. "The occupation may be earlier Seneca
or bone has been discovered."
te, lot 18, Groveland, on the Downs estate about 2 miles
Craig colony on the road to Dansville and on the
Two Mile creek. The occupation appears to be earlier
eneca.
te, lot 3, Groveland, on the Fitzhugh property. There
:res. Flints, celts and long pestles are found.
site south of the toll road and along Canaseraga creek.
flints, drills and scrapers have been found but no bone
ıe site appears to be located on the Wadsworth estate
:stern side of lot 35.
site on the Wadsworth estate on lot 28, town of Grove-
miles southeast of Mount Morris. There are several
ıdicated, the latest being that of Gathsegwarohare, a
:. This site is on the Canaseraga creek about 2 miles
ction on the Genesee. The Squawkie Indians had a
n 1779. The earlier sites on this tract, which embraces
res, have yielded grooved axes, drills, banded slate
ıents of steatite pottery and long pestles.
sites on the Shaker settlement (Craig colony) prop-
the Dansville and Mount Morris road. The sites cover
:. The culture is pre-Iroquoian.
site in Groveland on the site of the Seneca town of
vered more than 150 acres. This is at the juncture of
;a with the Genesee. Earlier camp sites are here and
ł slate objects have been found. The later Seneca
shown by Iroquois pottery and scraps of metal. Gene-
ssio, is a recent village in a way, and Gen. J. S. Clark
uccessor of the town above mentioned at the mouth of
;a (Sullivan, p. 132). Gath-she-gweh-oh, a Seneca

village near Williamsburg, at the mouth of the Canaseraga creek (Doty, p. 99). In old maps and journals it appears as Chenussio and Zonnesschio, and was the home of the troublesome chief Gaustarax (Doty, p. 132).

36 Village site on lot 26, Groveland, about 3 miles north of Groveland station. The site lies on either side of the road to Geneseo and is just north of the road running east to Groveland church. The first occupation is pre-Iroquoian and is followed by historic Seneca. The site covers 10 acres.

37 Village site on lots 29 and 30 in Groveland. This is on the Fond estate. The culture is early Seneca according to Mr Crofoot, but there seems to be evidence of an earlier occupation.

38 Camp site on lots 10 and 16, with relics scattered over 20 acres. This site is south of the Mount Morris and Hunts Corners road and lies along two small streams on the Lindslen farm.

39 Village site on the Baylor farm and on lots 25, 26, 27 in Groveland. The site lies on a rise of ground between two creeks and on both sides of the road to Geneseo. The occupation is pre-Iroquoian and prehistoric.

40 Village site known as O-ha-gi, a village of the Tuscaroras, situated a mile north of Big Tree on the same side of the river. Its site was a gentle swell of land rising westward from a marshy flat, some 30 rods south of Spencer's warehouse. The canal passes through the site, on the eastern border of which are yet standing (1872 or 1876) two apple trees planted by the natives. A spring of slightly brackish water, which supplies the village and around which the houses clustered, is still in use. Plain traces of several huts were to be seen in 1806. The burial site was situated to the northeast of the village from which it was divided by a small stream. (See note 24.)

41 Camp sites evidently for fishing purposes in ponds close by and which camps surround. These are near Long and Round ponds at the eastern edge of the township.

42 Small camp site, near Round pond.

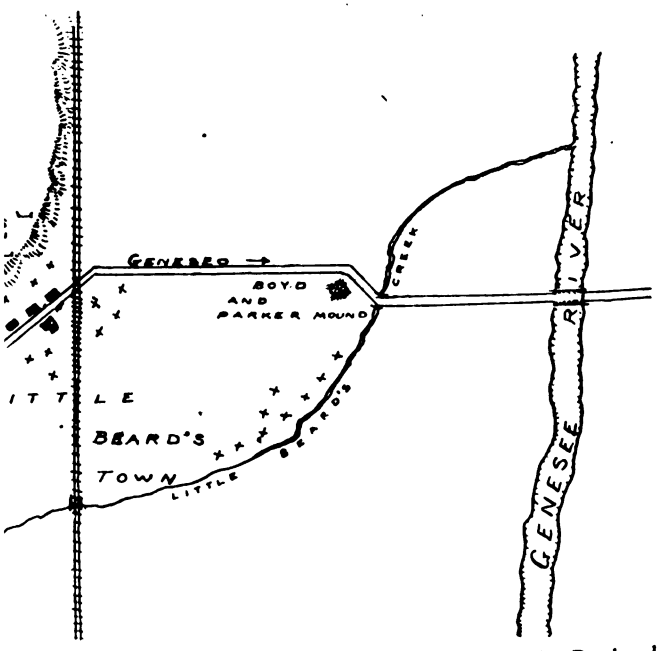
43 Seneca village at Lima. The burying ground was situated where the present Presbyterian church now stands. Excavations often yield relics from burials. The general locality had been occupied for a considerable period, the entire village of Lima showing evidences of this fact. Doty, in his history of the county, says there were traces of an old fortification on the road where the Indian village had been located, the west end of the ditch crossing the present highway a short distance west of the center of the modern village and remained visible for several years after 1798. The site is that of Gannounta.

ng place a mile north of Lima village yielding Seneca
articles.

site near the site of the power house of the old Honeoye
a electric road. There is a cemetery on the knoll rising
p. Modern relics are found. This site may be that of

site upon a rise of ground west of the last named
ly known as Fort Hill. Modern relics occur, including
pipes.

site on lot 55 on the John Elliott farm in the township of
The site embraces about 2 acres and lies east of the
oad. The principal evidences of occupation have been
a spring. Arrowheads, spearheads and celts have been



ketch map of the site of Little Beards town, and the Boyd and
(after Follett)

e site formerly occupied by Little Beards town in lots
3, Leicester, now occupied by the town of Cuylerville.
l evidences of occupation are on the flats between Park-
ds creeks; on the hilltop above there are evidences of an
pation by people of the mound-builder culture. Many
emonials have been found on the hill.

49 Mound on the edge of the hill just north of Beards town and along the northwest branch of Boyds creek. There are camp sites and evidences of earlier occupation along the ridge.

50 Mound on the hill on the rise of Beards town about 500 feet west of the edge of the hill. There are earlier camp sites adjoining.

51 Camp sites, probably a part of Little Beards town east of Cuylerville, on lots 117 and 118. Relics are found on both sides of the road leading from Cuylerville to Geneseo and along the creek.

52 The mound where Parker and Boyd were buried was on an eminence near the river and just south of the Geneseo road and near Beards creek.

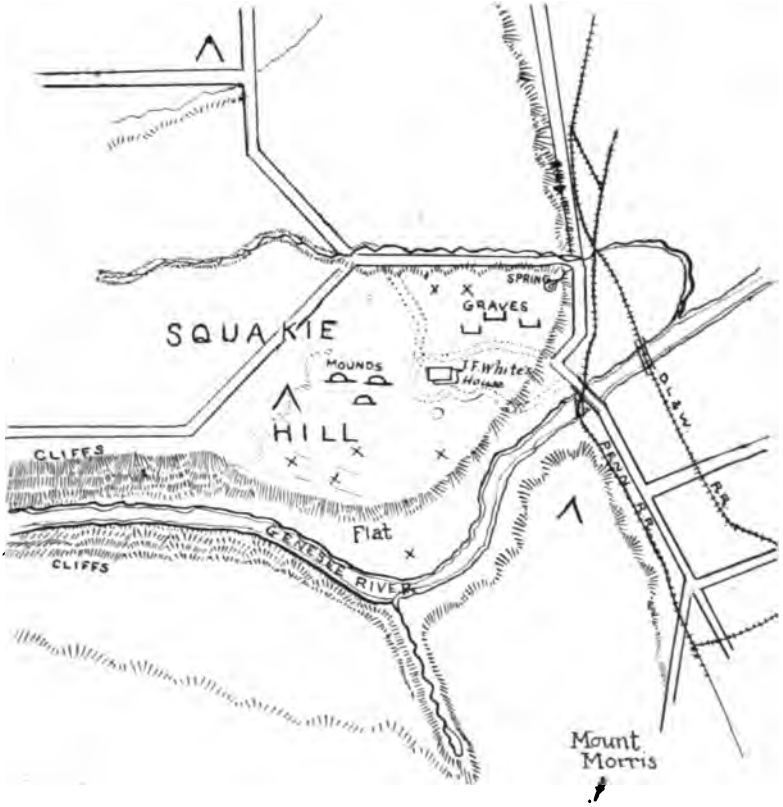


Fig. 79 Sketch map of Squawkie Hill site near Mount Morris

53 Village site just north of Little Beards creek on lot 122. There are about 6 acres in this tract. The occupation is pre-Iroquoian, yielding gouges, pestles, slate ceremonials and [illegible]

54 Village site of the mound-builder cultu[illegible]er, on the John F. White property.

tract. There are indications of three occupations on
ill and the area embraced covers lots 132, 33, 16, 17, 30,
. 15, 19, 28 and 18. Mr Crofoot calls this the largest
mp sites in the Genesee valley and remarks that the area
earliest as well as the latest remains of the Indians in the
ley. On the White property just overlooking the Genesee
vo groups of mounds. The larger mound situated the
ance from the river bank was opened by Mr White and
etons uncovered. These were stone grave burials and
pper axes, a fine platform pipe, three gouges and twenty
ed spearheads. The smaller mounds are in a group of
ed in the form of a triangle and situated not far from
residence. The northmost mound contained a stone
yielding 84 native pearl beads, 740 discoid shell beads
rm pipe, one of the finest ever found in the Genesee
the village surrounding the mounds there have been
bjects, notched flints, drills, scrapers, bell pestles, gouges
ugh stone objects. Modern burials are found north of
and across a small brook that takes its rise in a spring.
)

, known as the White Woman's spring and supposed to
sed by Mary Jemison, situated on the northeast side of
ll at the foot and in a gully formed by Parker creek. A
e was found here having on it hieroglyphics.

kaded fort in lots 129 and 134, Leicester. This fort was
he Horatio Jones farm east of the road to Jones bridge
west side of the Genesee. There was an earlier road to
own as the Old River Ford road.

e site on lots 114 and 115 situated on a portion of Little
but of a much earlier period. Celt objects and cere-
found, but no clay pottery.

e site in Leicester, lot 134 subsection 11. This is on the
Jones farm on the west side of the river and about a
of Jones bridge. Flints, bone and shell implements,
y pottery have been found. Mr Crofoot opened one
ning a skeleton in a good state of preservation, but the
found with it was a stone bead.

e site of the modern Seneca period, known as village of
Leicester on lots 111 and 112. Fine celts, iron axes,
fragments of brass are found.

site on lot 111, Leicester, and on the property of the
Company. This is near the village of Big Tree. Mr

Crofoot thinks they were camps of outlying lodges. The occupation is colonial Seneca.

61 Village site on lot 1, Leicester, on the Littleddyke farm, on the south point of the town of Leicester and on the west side of the Genesee river on a bluff north of Smoky Hollow. The occupation is pre-Iroquoian and there is no pottery.

62 Village in town of Leicester named as Big Tree by Morgan (p. 434).

63 Village site located on the property of Wadsworth at the junction of the Canaserega creek and Genesee river. The Indian name is Gawshegwehoh, denoting rattlesnakes, which it is said were plentiful there in early days. The town was destroyed by Sullivan's army. Surface findings consist of arrow points, pestles, celts, hammerstones, an occasional brass arrow point. A number of large brass buttons have been collected from this site by Mr Crofoot of Sonyea. (Follett's notes.)

64 Camp on Jaycox creek north of Geneseo.

65 Small village west bank of Genesee river near Geneseo. Modern Oneida village, inhabited to a late date.

66 Small village west side of Conesus lake.

67 Village site in Geneseo on lots 77 and 84. The occupation is pre-Iroquoian and has yielded a semilunar knife, flints, celts and long pestles, but no pottery and no metal. The site embraces about 5 acres and lies in a triangle between the Erie Railroad tracks and Jaycox creek. The best articles have been found immediately back of the railroad station.

68 Village site covering more than 50 acres south of Fall brook, in the town of Geneseo, on lots 40 and 41. The occupied ground lies along the ravine and extends to the river flats. There is an early occupation followed by that of some Iroquoian people and later by the Senecas, who had a village fort at the time of Sullivan's raid. The earlier occupation has yielded gouges, celts, long pestles, drills and several very fine banner stones and gorgets. The Iroquoian occupation has yielded pottery, bone and shell articles, etc. The European contact is shown by fragments of brass, copper and iron axes.

69 Village site in the town of Geneseo on lot 43. Most of it occupies the big lot on the flats. The site covers more than 100 acres and lies along the flats between five small creeks. There are several camp sites here that have yielded several fine slate ceremonials, fragments of steatite, gouges and cylindrical pestles. The later Seneca

ıtion is evidenced by the discovery of bone and shell ornaments
'oquoian pottery.

Village site of the late colonial period on the Wadsworth prop-
ot 41, town of Geneseo. This site lies along the Genesee river
›vers about 10 acres. Three small brooks run through it and
ıounds have been discovered lying just west of the Erie Rail-
racks. One is south of the Jones bridge road and the other
ıy between a brook and the road on the north.

Council house site on the east side of the river in the town of
eo one-half of a mile from the village.

Mounds, two in number, southwest of Geneseo on the Wads-
Big Tree farm. The first is about 40 feet in diameter and 4
gh, and the second one-half of a mile to the southwest having
the same diameter but its height has been much reduced for
.tion.

Stronghold or earthwork on the Wadsworth property in Gene-
nown as the Indian fort and reported by W. A. Brody of
:o.

Earthwork on lot 119 in Geneseo is reported by Mr Brody.

Village site on lot 42, Geneseo. This is the Sweet Briar farm
les from Geneseo and 60 or 70 rods south of the ridge leading
es bridge. There are two parallel ravines through which
creeks run; precipitous banks are formed by these ravines
; the place favorable for a stronghold. This object is com-
›y an earth wall thrown across the land from ravine to ravine.
appears to have been a ditch on each side of this wall. The
of Ethnology Report 1890–91 mentions two breastworks,
93 feet and the other 87, leaving a space between each wall.
'amps on the land south of this site, but the character of
ıas not been reported. Notched flints, celts, drills, scrapers,
nts of steatite and long pestles have been found. The later
Seneca occupation is evidenced by the presence of brass and
jects.

'illage site in Livonia on lot 13, at the foot of Conesus lake.
:e embraces a tract of about 25 acres south of a small stream
; into the west side of the lake. Slate objects, notched flints,
ıd long pestles have been found, but no clay pottery or
e of European occupation.

illage site on lot 6 in the town of Livonia on the property
'ned by Jacob Tram. This site has received considerable
n from archeologists and was known to E. G. Squier as the
Adams farm site. Squier says that the occupied area covers

f bone and shell ornamen

d on the Wadsworth prop
lies along the Genesee river
brooks run through it ab
just west of the Erie Ra
bridge road and the othe
the north.
of the river in the town o

age.
st of Geneseo on the Wad
ut 40 feet in diameter and
mile to the southwest having
has been much reduced by

Wadsworth property in Gen
eported by W. A. Brody o

is reported by Mr Brody.
This is the Sweet Briar farm
ods south of the ridge leading
rallel ravines through which
are formed by these ravine
onghold. This object is com
the land from ravine to ravine
n each side of this wall. Th
01 mentions two breastworks
ing a space between each wal
this site, but the character o
ed flints, celts, drills, scrapers
es have been found. The late
ed by the presence of brass an

13, at the foot of Conesus lak
25 acres south of a small stream
e. Slate objects, notched flints
found, but no clay pottery

own of Livonia on the propert
s site has received considerable
as known to E. G. Squier as e
says that the occupied area cover



Plate 185

investigations of Mr Crofoot and the New York
ow that the occupied territory covers about 20
kaded inclosure itself embraced 16 acres and
eral hundred feet along the edge of a hill that
ıp. There were two copious springs along the
ıpation is of the earlier colonial period and frag-
ınd iron have been found. A burial site was
State Museum in 1911 and reported in the
of that year. The portions of the burial ground
indicate that the burials were those of slaves or
Some of the graves were covered with stone slabs
ısual ornaments of brass.

ı lot 14, Livonia, one-half of a mile east of Lake-
Conesus lake, and on a sand hill on the north side
e occupation, judged by the relics, was of the
eriod.

ı lot 13 near Lakeville, on a tract embracing about
on the west side of the lake and along the shore
eks, but about one-half of a mile south of the site
Slate objects, flint celts, cylindrical pestles and
found.

n McPherson's point on the east side of Conesus
out 2 acres of land. A number of notched flints
en found.

ite located near foot of Conesus lake.

burials discovered in 1914; no records.

on lots 21 and 22, Mount Morris on the Phillips
at the head of Buck Run and on the road leading
to Ridge church. The area embraced is about 6
ıpation is late colonial Seneca.

on the town lines of Mount Morris and Groveland,
rris, and 83, Groveland, on the McNair farm. The
bout 40 acres and the period of occupation colonial

on lots 29 and 37, Mount Morris, on the Frost
idence of occupation covers about 20 acres. Slate
anner stones, gorgets, notched flints and scrapers
No pottery or bone implements are reported.

on lot 8, Mount Morris, on the McNair property.
Craig colony on the west. Many rough implements
nd a small quantity of pottery is reported. There

is no evidence of European contact. There is a small stream and a fine spring on the site.

88 Camp site covering about 1 acre on lots 44 and 45 in the town of Mount Morris and east of Brook's Grove. Pre-Iroquoian occupation.

89 Camp site embracing about 8 acres on lots 177 and 178, Mount Morris, on the B. Begale property. This site is about 3 miles south of Mount Morris on Buck Run creek and north of the road.

90 Camp site embracing about 8 acres on the Barron farm, lots 77 and 92, north sections. The site is about 2 miles south of Tuscarora and on the west side of the Pennsylvania Railroad and between two creeks emptying into Keshqua creek. The occupation is apparently pre-Iroquoian. No pottery found.

91 Village on Buck creek south of Mount Morris.

92 Village on Buck creek south of Mount Morris.

93 Village site on Buck creek south of Mount Morris.

94 Camp site on lot 108, Conesus, on the R. McCoy farm. The site is about one-half of a mile north of Scottsburg.

95 Camp site covering about 2 acres on lot 40.

96 Village site, the Seneca town of Kanaghsaws, or Gahnyuhsas, of 1779, on lot 50, Conesus. This is west of the Conesus inlet, and south of the lake. The site covers about 25 acres.

97 Village and camp sites on lots 187, 188, 199 in Portage. This is one of the largest groups of camp sites in the county and embraces a tract of about 100 acres. The occupation is pre-Iroquoian and many relics have been found, especially fine polished slate articles. This site is on the Prentiss farm about 2 miles south of Portageville, east of the Genesee.

98 Camp sites near Conesus.

99 Small camp site on farm of G. W. Durkee, Conesus.

100 Small site on top of Manoback hill overlooking north end of Hemlock lake. One burial located here in 1914 by B. R. Miller of Rochester contained elk's tooth, copper, stone and glass beads. Tests in 1916 did not yield anything. It is evidently a small site.

101 Camp site west of Dalton.

102 Camp site north of Hunts station.

103 Large village covering camp sites of probably 150 acres, known as Ga-ra-ca-dera. Just above here on the west side of the river are traces of important works.

104 Camp site on lot 3, Dansville, on the J. Hartman farm, about 1½ miles north of Dansville village.

ork one-half of a mile west of Dansville and south of
and west of Canaseraga creek. This is illustrated in
work, figure 88, who takes his plan after Doty. The
eneca. Clay vessels, pipes, stone and bone implements
id here.

Ganasegago was at Dansville (Morgan, p. 435).
s the door of the Six Nations (1756), whence none
ie to Fort Johnson (Doc. Hist. N. Y., 7:57). Many
were found there (Doty, p. 93). "Before the revolu-
to tradition, a battle took place on a hill a few miles
:n the Canisteo Indians and those living in this
which a chief in the latter was killed. When the
tled here the spot where he fell was marked by a
in the earth in the shape of a man with arms extended.
l led by the place and the Indians on passing were
ned to clear away the dry leaves which had blown in.
buried in an old Indian burying ground, which stood
he present Lutheran church, which was thickly cov-
s to the extent of 2 or 3 acres. His monument con-
e pile of small stones, gathered from time to time by
n a hill a mile distant, who, on passing, were accus-
one in their hand and add to the heap. (Doty,
ston County, p. 93.) Two rows of parallel holes,
lisades were two miles north of Dansville (Doty,

where the present village of Dansville now stands,
l.

ite in village of Scottsburg. Prehistoric celts numer-
dzes have been found here.

lage at Nunda Junction, probably O-non-da-oh.

unda. Occupation pre-Iroquoian.

te in Nunda, lots 19 and 20. The site covers about
s between Buffalo and Keshaqua creek, 1 mile north
e occupation is pre-Iroquoian. Relics have been

e on the Baker estate, on lot 101, Nunda, just east of
n the Erie Railroad.

e on lot 3, Nunda, on the S. Jones farm and near
. The occupation is pre-Iroquoian. The site covers

of Dansville and south
eek. This is illustrated
his plan after Doty. Th
tone and bone implement

sville (Morgan, p. 43
ons (1756), whence note
list. N. Y., 7:57). Many
93). " Before the revolu
place on a hill a few mile
and those living in th
er was killed. When th
he fell was marked by
a man with arms extende
e Indians on passing we
leaves which had blown
urying ground, which stoo
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acres. His monument co
thered from time to time
who, on passing, were acc
add to the heap. (Do
Two rows of parallel hole
north of Dansville (Do

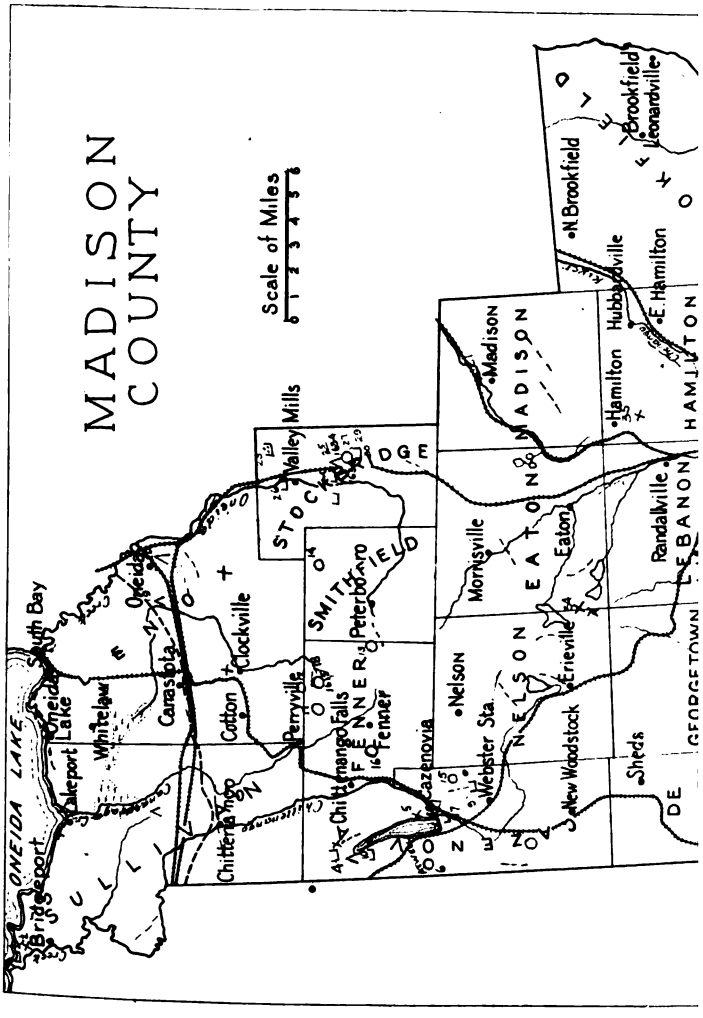
ge of Dansville now stan

irg. Prehistoric celts numer
ere.
, probably O-non-da-oh.
-Iroquoian.
nd 20. The site covers abo
Keshaqua creek, 1 mile nort
roquoian. Relics have be

on lot 101, Nunda, just east

n the S. Jones farm and ne
re-Iroquoian. The site cover

Plate 186



12

113 Located on bank of creek in village of Nunda, abandoned shortly before Sullivan's raid, the inhabitants joining the Indians at Little Beards town, and was never occupied again.

114 Village site on lot 14, in Sparta. This site is on the Ida Wambold property, formerly the Havens estate. The site covers 25 acres and is prehistoric.

115 Camp site on lots 20, 21, on the Hammond estate in Sparta. The occupation is pre-Iroquoian.

116 Village site on the H. T. McNair farm in West Sparta, lot 3. The site covers about 4 acres and lies between the Dansville–Craig colony road and Canaseraga creek. The occupation is early Seneca.

117 It is said that a mound containing a large number of human bones occurs near the head of Hemlock lake in the township of Springwater (Squier, p. 63). Southeast of the lake 2½ miles (Doty, p. 73). This would place the mound directly in the village of Springwater.

118 Small site on farm of James Rulferson, southeast of Caledonia, situated on low land at the south end of the swamp. Arrow points abundant.

Madison County

List of Sites

1 Burial place and fishing camp on Oneida lake, on the east bank of Chittenango creek. Bone objects are found. This is on lot 4 in the township of Sullivan.

2 Camp with flint implements and flakes on the east side of Chittenango creek, east of lot 15, Manlius. A little north of this was a stockade on a high bluff at a bend of the stream. Beauchamp thinks this was perhaps the one built by Sir William Johnson for the Tuscarora, this being then called Tuscarora creek. The Turtle tree was there.

3 Trail from Oneida to Chittenango crossed the creek a little above the turnpike bridge and passed by an old stockade and orchard on Colonel Sage's farm near Chittenango village (Clark, 1:384). The farm was once known as the Moyer and later as the Osgood farm (Hammond, p. 602). Perhaps the Zeniinge of Zeisberger.

4 Burial place north of Cazenovia lake and 2 miles east of Oran, on the Hitchcock farm. Recent articles. There are lodge sites also.

5 Many small camps at the head of Cazenovia lake and many signs of [illegible]nt tillage.

6 Earthwork or stronghold on the Hunt farm. It is precolonial but not far from 1600. No European articles have been found though a barbed bone fishhook suggested to Doctor Beauchamp some knowledge of Europeans. Pottery with human forms and faces as ornaments, and some specialized clay pipes are among the relics. The post holes across the ridge at either end from north to south are yet (1915) distinct. The east line is about 330 feet long and the length from east to west about 790 feet, rapidly descending the ridge. Nearly midway the width is about 100 feet. There is one gate near the northeast corner and two at the west end. The total area is about 4½ acres. There are caches at the west end. This earthwork has been called the "Atwell site." It was partially examined by Frank H. Cushing. The scene from this fort was used as the subject for the background of the Iroquois group in the Milwaukee Museum.

7 House sites and relics occur near the village at the foot of Cazenovia lake and there was a fish weir in the outlet, on lot 26.

8 Earthwork reported by L. W. Ledyard on the Swetland farm, about 4 miles southwest of Cazenovia village. He could give no further account of it, but it has since been reported to Doctor Beauchamp as a circular earthwork 4 miles south of Cazenovia and 1½ miles east of Delphi.

9 Burial place on Quarry hill 2 miles southeast of Cazenovia. This is on the Jackson farm 1½ miles southeast of Cazenovia village where A. G. Richmond obtained a large grooved boulder in 1897. This lay a little west of a comparatively modern Indian village site.

10 Burial site on lot 35, Cazenovia. This site and others in the vicinity are reported by E. R. Bradley.

11 Earthwork on the Dougherty estate, lot 61, Fenner.

12 Earthwork on the Brumyen farm, lot 64, Fenner.

13 Earthwork on lot 23, Fenner on the Jeffry's estate.

14 Earthwork on the Walton Olcott farm, lot 77, Smithfield.

15 Earthwork near school 16 on the Jackson estate, Cazenovia. This is on lot 63.

16 Earthwork reported by Mr Ledyard 3 miles northeast of Cazenovia village, east of Bingley and near the quarry. This or another has been described a mile west of Fenner.

17 A breastwork is mentioned by Hammond, History of Madison County, (p. 200) as east of schoolhouse 5. A skeleton was found in 1861 while placing a flagstaff at the school.

18 Village site once stockaded on lots 64–67 in Fenner in the northeast part of the township. This is the Nichols pond site

thought to be identical with the village attacked by Champlain in 1615. Gen. John S. Clark of Auburn first advanced this theory and all evidence seems to support it. There is an irregular limestone boulder on the site near the pond which may be one of the famous Oneida stones, if not indeed the original. In 1850 a part of the stockade was still standing in the swamp on the west side. The site lies on low ground between two small streams, the inlet and outlet to the shallow pond being not far apart on the same side of the pond. The site does not cover a large area. Beauchamp estimates the stockaded inclosure as about 500 by 700 feet. There was a village site, however, outside the stronghold and east of the inlet. The place had no natural defences other than its secluded location on the hilltops over the Oneida basin. There are twenty-five or thirty pits in the woods west of the site and several iron axes have been found there. The relics found within the site itself are all native and no European influence is shown.

19 Village site near Wampsville in Lenox. There was an historic Oneida settlement there.

20 Village site of the Oneida was called Canowaraghere, or Kanoalohale. It is the present Oneida Castle and was new in 1762, the old castle being still retained. This was 12 miles from Oneida lake, and a fort was built there. There were then two villages, one being near the lake. The fort seems to have been east of the creek.

21 Battleground on the hills directly south of Oneida Castle, and 2 or 3 miles distant, is a reputed battleground from the abundance of arrowheads and which is probably a village site.

22 Canaseraga was the principal Tuscarora town, but may not at first have occupied the present site. In 1792 it was west of the creek, and so many Oneida lived with the Tuscarora that it was often called the Oneida town. There were many houses there when the whites came, ten or more on the hill west of the creek.

23 Burial sites on the Dunlap farm in the northeast part of Stockbridge. There are also graves on William Smith's farm (Hammond, p. 733).

24 Burial place in Stockbridge on the West road. There seems also to have been a village.

25 Village of the Oneida near Munnsville. This was the village visited by the writer of Van Corlaer's Journal in 1634.

26 Burial place on the William Sullivan estate near Valley Mills.

27 Burial site reported by Doctor Beauchamp as northeast of Munnsville and northwest of the Ellenwood house.

28 Village site with modern relics on the Ellenwood property northeast of Munnsville.

29 Fort or stockade reported as south of the above-mentioned site.

30 Burial place mentioned in French's history, on a hillside 1 mile southeast of Munnsville.

31 Cornfields near Madison lake in Madison, and an Indian opening in the same town (Hammond, p. 602).

32 Village site near Earlville.

33 Village site near Poolville. Many relics have been found in this and the Earlville site.

34 Village of Oneida near Hatch's lake in the southwest corner of Eaton.

35 Camp, recent, 2 miles below Hamilton.

36 Mounds reported at Owens point, Chittenango creek.

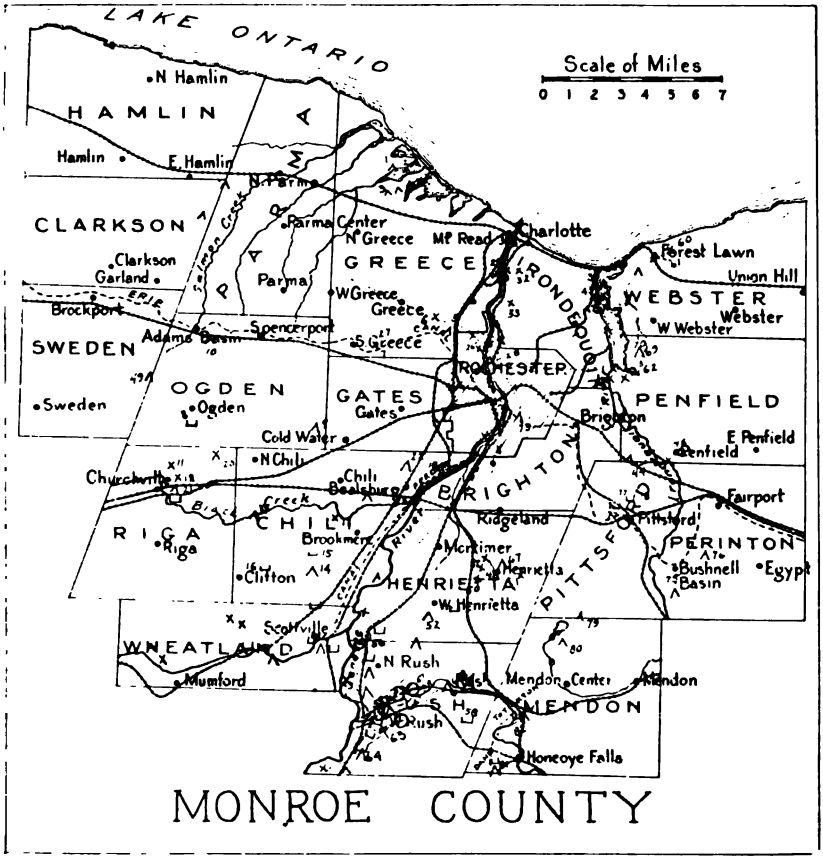
37 Near Munnsville and east of Oneida creek the Oneida lived a long time, removing short distances as occasion required. They were in that vicinity when Van Corlaer visited them in December 1634. This is the first record of them as a distinct people. Gen. James Grant Wilson accidentally discovered his journal a few years since and had it translated and published. From this a few notes regarding the town are given: "Before we reached the castle we saw three graves, just like our graves in length and height; usually their graves are round. These graves were surrounded with palisades that they had split from trees and they were closed up so nicely that it was a wonder to see. They were painted with red, white and black paint; but the chief's grave had an entrance, and at the top of that was a big wooden bird, and all around were painted dogs and deer and snakes and other beasts. We marched boldly to the castle, where the savages opened to let us pass, and so we marched through them by the gate, which was three and a half feet wide, and at the top were standing three big wooden images like men, of carved wood, and with them I saw three scalps fluttering in the wind. . . . This castle has two gates, one on the east and one on the west side. On the east side a lock of hair was also hanging, but this gate was one and one half feet smaller than the other one. . . . This castle is situated on a very high hill and was surrounded by two rows of palisades. It was 767 paces in circumference. There are 66 houses but much better, higher and more finished than all the others we saw. . . . A good many houses had wooden fronts that are painted with all sorts of beasts,

There they sleep, mostly on elevated boards, more than any other savages."

In 1677 Greenhalgh said that Oneida was "about 20 miles from a small river which comes out of the hills to the southward and runs into Lake Teshiroque [Oneida], about 30 miles distant from the Maquaes river, which is to the northward. The town is newly settled, double stockaded, but little cleared land." Twenty miles should be 2 from Oneida creek. In 1696 De Vaudreuil encamped on Oneida creek "within a [French] league of the village." Next morning he crossed to the east side of the stream and destroyed the town. The sites in the vicinity will be described under one number. According to Schoolcraft, the Oneida stone was of syenite and stood on a commanding eminence in Stockbridge. The White stone at the spring was also known as this. This had been placed in a fence by Job Francis, the owner. Another noteworthy stone of limestone was on General Knox's farm a mile or more south (Schoolcraft, Report, p. 46–48). The truth is that there were several of these stones, and some were portable. There is a tradition that the Oneida carried one to Wisconsin, but this is denied there. French describes it as a boulder of gneiss on the farm of James H. Gregg in Stockbridge, and now at the entrance of Utica cemetery (French, p. 458). Mr Kirkland said it was a stone which a strong man could carry, standing by a chief's door but sometimes placed in a tree. None of these seem to agree with the council rock east of the creek and southeast of Munnsville. It is said to have been carried away piecemeal.

"Thomas Rockwell settled on East hill in Stockbridge in 1813. The council rock was on his farm, which has been known as Prime's hill. Fifty acres of this including the council ground, were sold by him" (Hammond, p. 745). Prime's hill council ground in 1805 was a clearing of one-half of an acre with an entrance through the bushes on the east. In the center was a circle, 20 feet in diameter and 2 feet above the general level, covered with fine coals. Within a radius of 3 miles around were many graves, with iron axes, brass kettles, pipes, etc. (Hammond, p. 102). "There are evidences that the whole range of high hills east of Oneida creek was once thickly peopled. . . . Their burial grounds have been discovered in several places, from the south line of the town [Stockbridge] to the north on this range." The farms of Taylor Gregg, Ichabod Francis and William Smith are mentioned. The articles are mostly recent (Hammond, p. 731–33). The council spring is on the farm of Mary Doxtater at the foot of West hill (Hammond, p. 743).

Plate 187


LAKE ONTARIO
Scale of Miles
0 1 2 3 4 5 6 7
N Hamlin
HAMLIN
Hamlin
E. Hamlin
N. Parma
CLARKSON
Parma Center
N. Greece
Mt. Read
Charlotte
Forest Lawn
Union Hill
Clarkson
Garland
GREECE
Parma
W. Greece
Greece
WEBSTER
Webster
W. Webster
Brockport
ERIE
Spencerport
S. Greece
SWEDEN
Adams Basin
ROCHESTER
IRONDEQUOIT
Sweden
OGDEN
Ogden
GATES
Gates
PENFIELD
Brighton
E. Penfield
Penfield
Cold Water
N. Chili
Churchville
Chili
Scottsville
BRIGHTON
Fairport
Ridgeland
Pittsford
CHILI
Black Creek
RIGA
Riga
Brookmere
Mortimer
PERINTON
Clifton
Henrietta
Bushnell
Egypt
Basin
W. Henrietta
PITTSFORD
WHEATLAND
N. Rush
Mumford
Mendon Center
Mendon
MENDON
Rush
Honeoye Falls
MONROE COUNTY

List of Sites

1 Camp site on Kintz point near the mouth of the creek.

2 Camp site on the tip of Kintz point on Cranberry pond.

3 Camp sites near the head of Long pond on the southwest side, one-half of a mile east of the mouth of Northrup creek.

4 Camp sites at the north end of Lewis point, north of the road.

5 Camp site in Greece on the ridge north of the canal at the bend.

6 Camp site south of the ridge road and one-fourth of a mile west of the B. R. & P. tracks.

7 Burial place in the town of Greece on the banks of the Erie canal, on the northern boundary of George H. Lee's farm. In digging it in 1820 or 1822, twenty skeletons were found, but no articles with them (Harris, p. 27).

8 Burial site from which a number of finely preserved skeletons have been found 3½ miles south of Adams Basin on the west side of the road below Ogden.

9 Camp site on the Tyron Talbott farm 3 miles south of Spencerport and 1 mile east on a crossroad running to the farm. Many arrow points have been found here.

10 Village site on the Blackford farm at Adams Basin, reported by Mr Follett.

11 Small burial site north of Churchville, north of Black creek and across a brook at the southwest corner of the roads.

12 Small village site east of the bend of Black creek, north of Churchville.

13 Burial site, thought to be prehistoric, 1½ miles southwest of Buckbee Corners, north of Black creek and near a millpond south of the road. No records are obtainable, though skeletons have been found.

14 Camp site on Karges farm northwest of Scottsville and near South Chili, seems the site of a mound described by Squier, though there is no evidence of it now, according to Mr Follett. It is 1 mile northeast of South Chili and between the road and a swamp and brook to the east.

15 A burial site is three-fourths of a mile north along a small stream running into Black creek.

16 Burial site where skeletons have been found, north of Clifton and north of the road to South Chili just east of a small stream.

17 Village site, regarded as prehistoric, where implements once abundant are now scarce, located northwest of the South Chili road between the bridge and the mouth of a stream running north from Clifton.

18 Camp site on the Wadsworth farm south of Rochester and across from Genesee Valley Park.

19 Village site along Allen creek near the west line of Wheatland.

20 Site showing occupation on the Wingate farm north of Churchville. Mr Follett, who examined the place in 1915, found three large charcoal pits and a few arrowheads.

21 Village site now obliterated in the present village of Churchville. Evidences were formerly seen on the surface at the West Shore crossing.

22 Village and burial site near Maplewood west of the B. R. and P. tracks and near the headwaters of a small stream. The burials are located in a sand knoll. The only object found in the graves, so far as records show, is a pottery pipe, discovered by Mr D'Olier of Rochester.

23 Village or large camp site near Genesee Junction, north of Black creek and in the angles of the Pennsylvania and West Shore Railroad tracks.

24 Small village site north of Scottsville, in Chili township and along the Genesee river. This is just east of Severance.

25 Refuse heap discovered and excavated in 1910, in the city of Rochester.

26 Burial site on Ridgeway avenue, Rochester, excavated by George Rodman Mills. Thirteen skeletons were found in an ossuary.

27 Village site on the George H. Lee farm, 2 miles south of Greece on the hill north of the canal and east of the road.

28 Semicircular embankment, the ends of which extend to a deep ravine. Squier says it had three narrow gateways at irregular intervals. This was in the city of Rochester on the west bank of the Genesee near the lower bridge. There was also a village site here.

29 Village site on the west side of the Genesee river near mouth.

30 Village site just south of this between the side tracks.

31 Village site reported by Harris.

32 Village site reported by Harris.

33 Camp grounds near a break in the cliff on the east bank of the Genesee, one-half of a mile below the lower fall. This makes a natural landing place which attracted camps. There were two mounds not over 100 feet from the edge of the bluff, which have been leveled, but skeletons and relics have been found. This is Brewer's landing, one-half of a mile north of Hanford's, which is on the other shore (Harris, p. 23-26).

34 Mound now obliterated.

35 Burial site near the foot of Irondequoit bay above the pleasure park. Turner records that in 1796 the bank caved off here, expos-

ing large quantities of human bones. Squier records this site and Harris (22) also mentions it.

"On the shore of Lake Ontario on a high bluff near Irondequoit bay in 1796 the bank caved off and untombed a great quantity of human bones of a large size" (Turner, P. & G., p. 428). It was a natural sand mound west of the present west angle of the bay. "As late as 1830 human bones of an unusually large size were occasionally seen projecting from the face of the bluff or lying on the beach" (Harris, p. 22). Others are placed under this number. "Two mounds occupy the high sandy grounds to the westward of Irondequoit bay where it connects with Lake Ontario. They are small, the largest not exceeding 5 feet in height." They had been opened and only charcoal and pieces of bones remained. Early relics were on this height (Squier, p. 56–57, pl. 7, no. 2). Squier's plan is given in figure 57. They were on the hill south of the Sea Breeze hotel about 30 feet northeast of the observatory. Harris was told that W. H. Penfield opened them in 1817 and found a "sword scabbard, bands of silver, belt buckles" and like ornaments (Harris, p. 46). There was a gulley east of these and a cemetery a few rods beyond.

36 Earthwork at Hanford's Landing west of the Genesee, in Rochester. Squier (58) says it was a semicircular embankment.

37 There were camps at the Indian spring, at the corner of Spring street and Spring alley, and all the way thence to Hanford's.

38 At the upper Charlotte ferry and nearby have been found arrowheads and stone pestles, bullets etc. (Harris, p. 43).

39 Indian huts were scattered about the bluff near Franklin and North St Paul streets until 1819 (Harris, p. 39–42).

40 Village site in Gates on Corn hill in the city of Rochester. Two occupations are evident, one early and one late. There was a spring here.

41 Cache on the west bank of Irondequoit bay where Harris found more than five hundred cache blades all covered with red pigment.

42 There is a village site along the bank here.

43 Burial site near trolley station on the bluff above Irondequoit bay and near Sea Breeze.

44 Burial site at the sand cut of the New York Central Railroad east of the Allens creek embankment. Many skeletons and recent relics were exhumed in 1876. "Between the cemetery and the Pittsford road quantities of stone relics have been found, indicating the site of a prehistoric town. West of this is located the great cairn of limestones" (Harris, p. 43).

Capt. John Schuyler built a trading post at the noted Indian landing on Irondequoit creek in 1721. The foundations were found in 1798. This was a place of resort (Harris, p. 67).

45 One-half of a mile south of this landing at some springs were many camps and relics (Harris, p. 39).

46 Mound, mentioned by Squier one-half of a mile east of Penfield on the north bank of Irondequoit creek. It is situated on a rise that projects into an artificial pond. Originally it was 8 or 9 feet high and 40 feet across. Locally it was thought to be a "money" or "treasure mound" and it has been dug into during a period of many years. Fragments of decayed human bones have been found. Evidence of the construction of the mound is still visible in the depression in the sandy loam caused by the removal of the material for the mound. Mr Follett was unable to determine what relics, if any, had been discovered.

47 Village sites half a mile southwest of West Henrietta Corners on the Marvin Williams farm, lot 28 (Harris, p. 60).

48 Camp 2 miles southwest of Henrietta, just east of Sauger creek. There are fine arrowheads and pottery.

49 Camp site 2¼ miles east of Sweeden Center east of the Garland crossroad and along Salmon creek.

50 Village site yielding pottery and finely chipped flints, west of a small creek on the West Henrietta road to Rush, north of the road before the turn (Harris, p. 60).

51 Camp sites on Red creek west of Henrietta station. Evidences of occupation extend down the creek to Mortimer.

52 Camp site northeast of Martin at the junction of two small brooks, 1¼ miles southwest of West Henrietta station.

53 Camp site near the Genesee where many Unio shells have been found. This was on a hillside three-fourths of a mile east of the mouth of Allen creek.

54 Early village site on the Burgett farm 2¼ miles south of West Rush and west of the road. Relics have been found scattered over the farm. In 1911 a skeleton was found in a sand knoll one-fourth of a mile east of the Burgett residence.

55 Village site stretching along the south bank of the Honeoye near the mouth and north of the New York Central Railroad tracks. Here an Iroquoian occupation overlaps an older Algonkian. The sites stretch along the creek for three-fourths of a mile. At the eastern end, about one-half of a mile from Golah, Joseph Mattern opened an ossuary containing a number of skeletons, but there were no relics.

56 Burial site in a sand pit 150 feet north of the Rush town line in Henrietta, and 200 feet from the river. A skull and kettle were

plowed up 200 feet east of these. Some skeletons were also found on the line of the Erie Railroad 200 feet north of the town line.

57 Village site with stone implements occurs on the Thomas farm, 1½ miles southwest of East Rush. This is south of Honeoye creek and near the mouth of Stony brook.

58 Burial site midway between Honeoye Falls and West Rush, and about 2 miles directly south of Rush along the railroad track. Partly explored by Joseph Mattern.

59 Burial site north of West Rush village just south of the Lehigh Valley Railroad tracks and on both sides of the road. Many iron tomahawks and war arrowheads have been found in a slight gully three-fourths of a mile northwest of West Rush, and twelve skeletons were exhumed in digging a cellar about the same distance north of that village. Across the road others were found. These were on the land of Peter Martin and J. B. Hamilton.

60 Village site reported by Harris (45). A trail ran to a salt spring where the Indians camped and made salt.

61 Village site last occupied by the Seneca in Webster at the foot of a hill at the angle of the roads at the east side of Irondequoit bay and near the lake. Skeletons have been found here. They are described as being buried in a circle like the spokes of a wheel. Crude stone relics were found.

62 Mounds in Penfield, mentioned by Harris, on a high bluff east of the mouth of Irondequoit river. Now obliterated.

63 Village site on the Stull farm on the east side of the Genesee, just south of the Honeoye at its confluence. The region here shows several occupations by similar and different stocks and at widely different periods. The Stull farm has yielded both early and recent Iroquoian objects, some fine clay pipes, and also pre-Iroquoian slate objects. The burials are found between the Stull house and the railroad. A few burials also have been discovered back of the house on the hillside slope to the river.

64 Village on the Morris farm yielding stone implements of good quality. This site is on a hill overlooking the river on the east.

65 Village site in East Rush cemetery, noted by Harris (p. 60). Stone implements have been found.

66 Small village site on north side of the Honeoye at West Rush. Many flint blades and a few celts have been found.

67-68 Two inclosures were in Rush near the village of West Rush and on the banks of Honeoye creek, which defended one of these on one side. The other was on higher ground 100 rods southward. Each was of 4 acres and had caches and broken pottery (Squier. 60). These are probably on lot 51.

69 Village site and mound on the Smith farm, east side of Irondequoit bay, in Penfield town. This is on the flat below the high banks and near the waters of the bay. The mound appears natural but when excavated by R. T. Webster and A. H. Dewey it was found to contain five hundred net sinkers and a pipe bowl, besides fragments of animal and fish bones and sherds of Algonkian pottery. The "mound," which is 50 feet in diameter, may be merely a built-up refuse heap or a lodge site.

70 The village site is on the hills above and covers the region about the edges of the bluff. Several skeletons have been found but a berry field now prevents excavating. A private roadway leads down past the Smith residence to the bay.

71 Mound near the village of Penfield on the bank of Irondequoit creek. This was a sepulchral mound about 8 feet high. There was a depression near showing whence the earth had come (Squier, p. 57, pl. 8, no. 3). (Same as 46.)

72 Village site in Genesee Valley Park, Rochester. The site seems early and covered nearly all Oak hill.

73 Village site in Rochester north of Main street bridge and just east of the river. One-half of a mile southeast a large mortar was found. Pipes and other relics were discovered in a gravel pit nearby.

74 Canoe landing on Irondequoit creek along the Brighton and Bay road.

75 Camp sites in Perinton township near Bushnell Basin and just northwest of Bullhead pond. There is a high round-topped hill here with precipitous sides.

76 Camp site on the hilltop 2 miles northeast of Bushnell Basin and south of the Pittsford road to Egypt.

77 Village and burial site in Pittsford township, between the electric and the New York Central Railroad tracks, 1½ miles west of Despatch.

78 Indian ceremonial stone heap located near the west bank of a small stream, just west of where the electric road leaves the highway, due northwest of Pittsford, 1¼ miles.

79 Camp sites on Mendon pond near the low ground on the east side. Mendon pond is in the northwest corner of the township.

80 Camp sites at the south end of Mendon pond east of a knoll east of the small pond.

81 Village and burial site on the John Dann farm southwest of Honeoye Falls, 1½ miles. It occupies a sloping hillside above Springbrook. The occupation is Seneca and late, probably after 1687 and before 1789.

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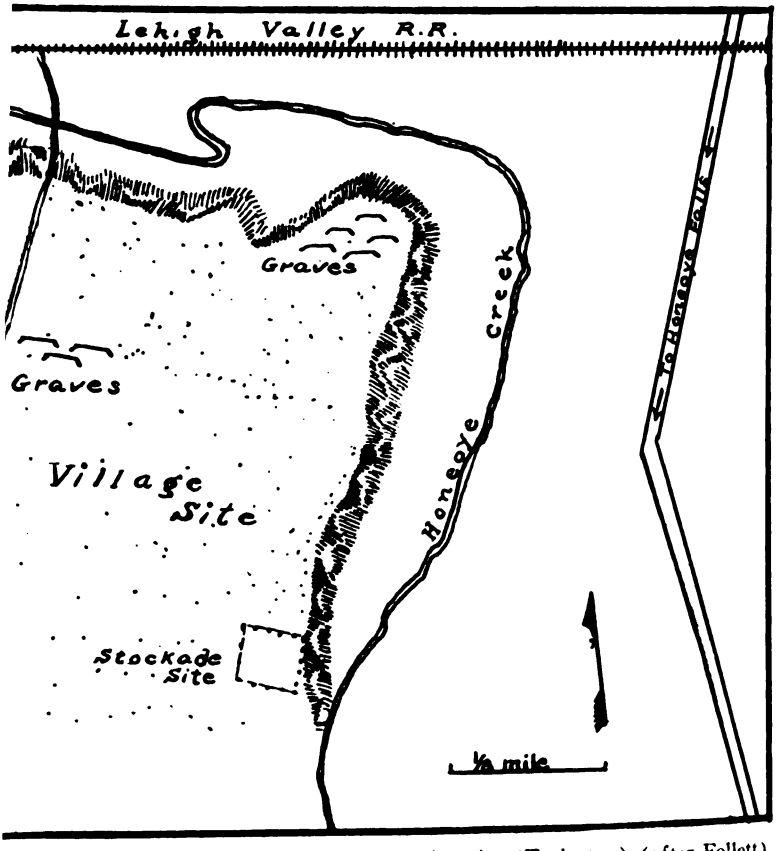
John Dann farm south
upies a sloping hillside
ca and late, probably

Plate 188



The Dann Farm site looking

82 Village and burial site on the W. J. Kirkpatrick site at Rochter Junction. This site, which has been identified with Totiacton, as the site of the Jesuit mission of La Conception. The ground a terrace above Honeoye creek, which makes a sharp bend at this oint. There is plenty of good water and a fine spring. The occuation is manifestly recent.



ig. 80 Sketch map of the Rochester Junction site (Totiacton) (after Follett)

Village site covering about 30 acres on the Kirkpatrick estate at Rochester Junction. This is situated in the point of Honeoye creek n the town of Mendon on lot 1. The site has been identified with he Seneca village of Totiacton. Numerous fragments of glass Venetian beads, pieces of brass and iron intermixed with flints, stone mplements and shell objects prove the site to have been one of the

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Plate 189

middle colonial period. Greenhalgh said that "Tiotehatton" was 30 miles west of Canagorah and had about 120 houses, mostly large. Harris says "Tiotiakton was distant from Ganagora (the Victor site) just 11 miles in a northwest direction. Its former site was located by O. H. Marshall in 1847." The name Totiacton alludes to the bend in Honeoye creek, on the west bank of which it stood.

"It is in the town of Mendon on the northermost bend of the Honeoye outlet 2 miles north of Honeoye Falls exactly 12½ miles in an air line due south of the center of Rochester. The ground has been under cultivation 75 years, yielding an annual harvest of antiquities. . . . Three cemeteries have been discovered. . . . All skeletons unearthed have been found in a sitting posture facing the east." Mr Sheldon found a square stockade of one-half of an acre on the edge of the bluff and near the creek. It was "built of logs 12 feet long, set closely together in the earth to the depth of 4 feet." This is a very modern style though Mr Harris thought it was made just after De Nonville's invasion (Harris, p. 58, 59). This was La Conception of the Jesuits, which was burned in 1687. According to George S. Conover it was removed to the vicinity of Canandaigua and called the second Seneca castle. It was visited by La Salle, and may have been abandoned soon after (Beauchamp).

Montgomery County

General occupation. Montgomery county was early occupied by the Mohawk after their entrance into the Mohawk valley. Investigations of importance have been carried on here by S. L. Frey, A. G. Richmond, Robert Hartley and P. M. Van Epps. The most important sites are those at Cayadutta near Sammonsville, which is a precolonial Mohawk site, Otstungo in the town of Minden and the four Mohawk castles, Cahainaga, Canagora, Canajocha and Tionondogue. Nearly all these towns have been described in early historical accounts as stockaded village sites. The last named was a capitol town of the Mohawks at the time of the Dutch discovery. Previous to the coming of the Mohawk other people had visited the valley and made their homes there. One of these earliest sites of the stone grave people is about a mile east of Palatine Bridge. The later villages on the Mohawk are distributed through the county in the valley and on the hills bordering the river.

List of Sites

1 Village and burial place in gravel bank west of St Johnsville and near the railroad track, reported by S. L. Frey. Modern relics are found in the burials.

2 A modern village and cemetery a mile northwest of Palatine Church on the Nellis farm.

3 Recent burial place 2½ miles northwest of Nelliston and north of the river on the Smith farm, formerly Lipe's.

4 Northeast were about twenty caches and 50 rods north a village of 2 acres with recent relics. This is south of Palatine Church.

5 Village site east of Palatine Church, near school 8. The occupation is colonial Mohawk.

6 Village site on the Fox farm 4 miles east of Palatine Bridge. Mr Frey thinks this may have been the Can-a-gor-ha of Greenhalgh. This site is at Schencks gulf and 2 miles from the river.

7 Village site on Schenck farm at the county house back from the river. Historic Mohawk occupation.

8 Village site at Briggs run. Modern articles have been found.

9 Village site on Briggs run on the Van Evera farm, 6 miles from the river. Much pottery and bone articles have been found.

10 Pits on Garoga creek 5 miles from the river.

11 Village site on Crumb creek examined by M. R. Harrington for the Peabody-Harvard Museum. This is the Ganada site near St Johnsville.

12 A recent village site in Jonas Rice's woods 2 miles east of Stone Arabia. Bone implements and Mohawk pottery have been found.

13 Recent village on the old Frey farm 1½ miles west of Palatine Bridge.

14 Recent village on DeWandalied's farm 2 miles north of Palatine Bridge.

15 Pits or caches forty to fifty in number, about 6 miles northeast of Palatine Bridge. These "caches" are closely grouped in England's woods. Lodge sites are near, with early and recent articles. Celts, pottery and bone implements are found.

16 Village 2 miles northeast of Palatine Bridge on the Sitterly farm. Early occupation.

17 Village site on the Josephus Nellis's farm on the gulf road a mile west of Palatine Bridge. This is at the head of the gulf. The occupation is prehistoric.

18 Burial site with stone graves, a mile east of Palatine Bridge, fully described in the American Naturalist for 1879, pages 637–44. It was explored by S. L. Frey and A. G. Richmond in 1878. Copper and shell beads and several stone tubes were found. The graves were all lined with flat stones and in several graves large stones were placed above.

19 Phehistoric camps are found along the river flats and ridge at Palatine Bridge and for 2 miles east.

20 Village and stronghold on a fine and elevated site east of Garoga creek and overlooking Wagner's hollow. It is about 5 miles northwest of Canajoharie with an area of several acres, and contains pottery, stone articles, bone implements and iron axes.

21 Village and burial site on the Smith farm near Palatine Bridge. Mohawk occupation.

22 Village site on the DeWandalied farm near Palatine Bridge. May be the same as 14.

23 Village site near Stone Ridge. Glass beads have been found on this site.

24 Village site 4 miles north of Yosts. Prehistoric.

25 Village site of Mohawk occupation east of Yosts station on the Briggs farm.

26 Village site 2 miles southeast of Canajoharie.

27 Village and burial site on the Van Alstine farm in Canajoharie, just east of the corporation line.

28 Village and burial site on the hillside just west of Canajoharie, with recent articles.

29 Village and burial site on the Allen farm near Canajoharie. Historic Mohawk.

30 Village site and stronghold near Sprakers. The site covers a small plateau on the hillside above the Mohawk river and lies along Flat creek, on the east side. The hill rises back of it and there is a small brook to the east. A few historic colonial trade articles have been found. The site is that of Tionontoguen, described by Van der Bogart, but commonly ascribed to Van Curler.

31 Village, presumably the middle castle in 1730, was on Prospect hill in Fort Plain and on the east side of Otsquago creek. There are many recent graves and relics. This was described in the survey of 1723 as "The Cassel of Ta-re-gi-o-rus." There were one or two earlier Canajoharies.

32 Village site at Canajoharie. Graves have been found. Mohawk occupation. This was the location of the homes of Brant and of Hendrick and was known as Upper Canajoharie.

Plate 190



The Caroga site, Ephrata, looking west. Burials were found on knoll to the extreme left. Excavated by Harrington for the Peabody Museum, Harvard.

33 Village site, presumably that of Gandawague of 1667, was the nearest Mohawk village to the Mahikan, sometimes called Mohegan, who attacked it in 1669. Gen. J. S. Clark placed it north of the Mohawk on a high plateau on the west bank of Cayadutta creek and north of the road to Stone Arabia. Relics are found. L. H. Morgan said that Ganowauga was a small village north of the river at Fonda.

34 Village and stockade site in Minden 1 mile southwest of the river and about 4½ miles from Fort Plain on the river road. The sites occupy a sloping hillside and north of a small stream that makes a deep gorge on the south.

35 Corn pits just south of the former site and on the high hill or ridge between the forks of a small stream.

36 Village of the Mohawks at Tribes Hill.

37 Cache containing 100 flints was found by P. M. Van Epps in an ash bed in Amsterdam.

38 Earthwork, locally known as Indian hill, in the town of Minden, 4 miles south of Fort Plain on the Otstungo creek, a branch of the Otsquago. A rocky precipice bounds the stream and defends the fort on one side. There is a ravine on the other. About 700 feet from the point was a bank from side to side, about 240 feet long and slightly curving at the ends. The area was about 6 acres. No European articles have been found although Squier incorrectly states so. A large quantity of relics have been found there.

39 Large village site on hilltop on west side of Yatesville creek 2 miles up the stream.

40 Village and camp sites near Randall, now covered by the barge canal. Notched points and blank blades of Flintridge material were found by R. F. Horning, of Fultonville.

41 Camp sites near the Blue Banks on the west side of Schoharie creek, reported by Mr Horning.

42 Burial site near Fort Plain Institute. Recent occupation.

43-44 Two village sites in Happy Hollow on Brown's farm 2 miles west of Canajoharie and on the south side of the river. They have small cemeteries, one old and one recent, with corresponding burial. Pottery with human figures occurs here, as in several other places.

45 Recent village at Lasher's 2 miles east of Sprakers.

46 Village site and cemetery at or near Auriesville where Gen. J. S. Clark locates the most easterly town of 1642, on the south side of the river and one-half of a mile south of Auriesville. "The site is one-fourth of a mile from the river on the farm of Victor

A. Putnam 130 or 150 feet above the river." Here a shrine is a memorial of the death of Father Jogues. Recent relics are found. There was a recent village of a temporary character on the hill west of Auriesville.

47 Village site, presumably Tehondaloga, the lower Mohawk castle, "was on the west side of Schoharie creek at its mouth" (Morgan, p. 416). There was a modern village at Fort Hunter and relics occur all the way to Auriesville, with some graves.

48 Pictured rocks on the north bank of the Mohawk at Amsterdam, mentioned by many writers.

49–50 Burial site in gravel about one-half of a mile east of Fort Hunter, reported by Edwin Hilborn.

51 Cache of celts was reported by Isaac Swart north of the river and about 2 miles from the east line of the town of Amsterdam. (Same as no. 6.)

52 Village site on the east bank of Kauderback creek in Palatine and about 3 miles from the river. A quarry or deposit of flint chips was a mile south of this.

53 Village site near the west line of Mohawk was on the south side of Brigg's creek. Another was north of this in the forks of Briggs and Wemple creeks.

54 Prehistoric village was on the west side of Wemple creek and farther north than the last.

55 Village site on the north side of the river, opposite the west line of Glen, on the Jules Fox farm.

56 Village site on the east side of Martin's creek was near the river. Another was 2 miles northwest of this.

57 Village near Mill Point was west of Schoharie creek. (Same as 41.)

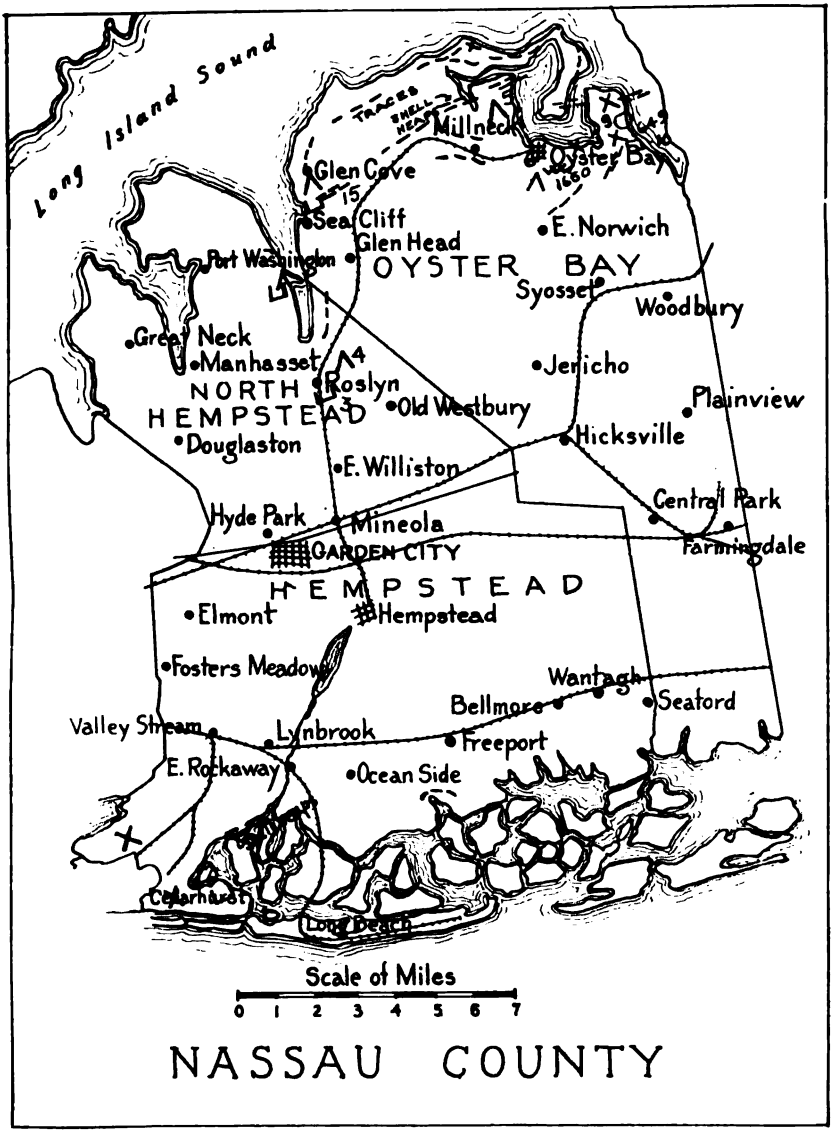
58 Village site on the Cayadutta near Sammonsville. Precolonial Mohawk. (May be the same as 33. Sammonsville is in Fulton county.)

59 "Corn pits in the town of Amsterdam on the east side of a small stream about one-half of a mile north of the Mohawk river."

60 A cache of one hundred and twenty leaf-shaped blades of dark blue flint was found in the summer of 1890 on the farm of Thomas Romeyn, in the town of Amsterdam. The blades laid in a pit of ashes on a hearth of cobble stones. Mention is made of this cache in "Wilson's Arrowheads, Spearheads and Knives," page 971.

61 Village site on the More (originally Printup) farm on the hill overlooking the Mohawk, about 2½ miles east of Fultonville. Historic period; glass beads are found.

Plate 191


Long Island Sound
TRACED SHELL HEAD
Millneck
Oyster Bay
1660
Glen Cove
15
Sea Cliff
Glen Head
E. Norwich
Port Washington
OYSTER BAY
Syosset
Woodbury
Great Neck
Manhasset
Jericho
NORTH HEMPSTEAD
Roslyn
Old Westbury
Plainview
Douglaston
Hicksville
E. Williston
Central Park
Hyde Park
Mineola
Farmingdale
GARDEN CITY
HEMPSTEAD
Elmont
Hempstead
Fosters Meadow
Wantagh
Bellmore
Seaford
Valley Stream
Lynbrook
Freeport
E. Rockaway
Ocean Side
Cedarhurst
Long Beach
Scale of Miles
0 1 2 3 4 5 6 7
NASSAU COUNTY

Nassau County

List of Sites

1 Stronghold reported by W. W. Tooker as belonging to the Marsapeagues, 1½ miles west of Amityville. Lodge sites extend westward to Bellmore.

2 Village site and burial place at Port Washington, excavated in 1898 by M. R. Harrington, for the American Museum of Natural History. This site was near the shore and embraced several shell heaps and a burial place.

3 Burial site on the Gallagher estate near Roslyn, reported by Dr Joseph N. Bogart.

4 Village site on the Walter Hicks estate near Roslyn. There is a shell heap here.

5 Village site near Matinicock not far from Oyster Bay on Peters creek on the Matilda Cock estate. This was explored in 1900 by Harrington and Parker for the American Museum.

6 Garden spot and corn fields were abandoned by the Indians at Oyster Bay in 1650.

7 Village site on the W. F. and W. M. McCutcheon farm near Glen Cove.

8 Village site on the Appelby farm in Oyster Bay.

9-10 Judge Samuel Jones said that when that part of Long Island was first settled there were two Indian forts on Fort Neck near Oyster Bay. The one on the south part was a square earthwork. The other was a palisade on the meadow (Squier, p. 94). One was stormed by the whites in 1653. Prime says this was built in 1649 and measured 30 by 50 yards (p. 96).

11 The Rockaways lived in the south part of Hempstead and left large shell heaps. They had several villages but were principally at Near Rockaway. Some were at the head of Maspeth creek and others on Hog Island in Rockaway bay (Thompson, p. 67).

12 Burial place near Cedarhurst on the Mrs F. F. White property. Village site and shell heaps on the R. L. Burton farm near Cedarhurst.

13 Village site of the Merikikes, who had a large settlement on Hicks neck and on other points between there and Merrick (Thompson, p. 67).

14 Camp on Success pond, near Lakeville (Mandeville, p. 94).

15 Village and burial sites near Dosoris on Dosoris pond. The site was on the Price estate. There is a heavy layer of shells, in

places 6 feet deep. Skeletons were found near the house. The site was excavated in 1900 for the American Museum by Harrington and Parker.

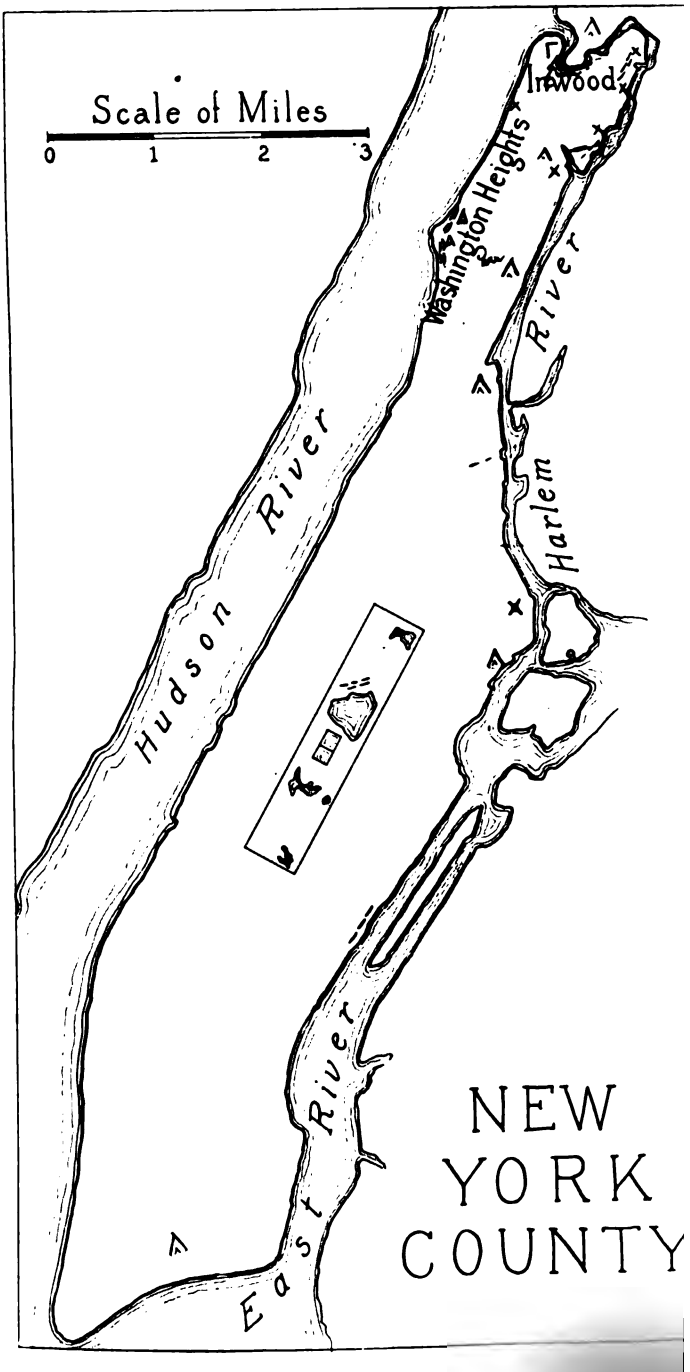
Shell heaps exist on nearly all the creeks in Oyster Bay township and there is abundant evidence of aboriginal occupation. Grooved stone axes and quartz projectile points are commonly found.

New York County

General occupation. At the time of the Dutch discovery Manhattan island was occupied by chiefs of the Delaware Indians not associated with the Delaware confederacy. The principal divisions were the Wickquaesgecks, who held the upper portion of the island above Harlem Creek and Manhattanville, and the Reckgawawanck, who held the lower portion of the island. Each of these tribes also occupied territory on the mainland where their larger villages were situated. The Indians in the northern part of the island were a part of the Siwanoy who belonged to the Wapanachi confederacy, which of course was a part of the Mahikan group of Algonkin Indians. The Reckgawawancks, whose chief in 1639 was Rechewack, had a village of some size on the Bronx river, which was known to them as the Acquehung. This village was named Ranachqua. One of their larger camps or fishing places was at Montagne's point, situated on the shore of Hell Gate bay, just off the present 110th street. Another one of these shore camps was situated on the banks near 121st street and Pleasant avenue or in the same locality.

The chief village of the Wickquaesgecks was known as Nipnichsen. It was a stronghold situated on the top of Spuyten Duyvil hill. This position is where the present public school building stands. Another settlement where considerable portion of these people had their homes was in the sheltered valley along the shore of the creek on the Dyckman tract, at Inwood. This general region was highly favorable for aboriginal occupation, having both fertile soil for raising maize and waters that provided sea food. Its high rock cliffs permitted fortified positions, while the many waterways made it possible for journeys to the surrounding countries. Not much has been known of the archeology of Manhattan island until comparatively recently when the excavations of Reginald Pelham Bolton, Alexander Chenoweth, W. L. Calver, James K. Finch, Dr E. H. Hall, Alanson Skinner and others brought to light many relics from shell heaps and refuse deposits. Most of the explorations date from

Plate 192



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...in Oyster Bay town...
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about 1890, at which time the importance of the various aboriginal sites seems to have first been realized. Several good accounts of these sites have been published by the American Museum, in volume 3 of "Anthropological Papers."

The original name for the Indians of the island was the "Manhattans," a name translated by the modern Delaware as "the place where they were all intoxicated." This interpretation is based on the tradition of the first meeting of these Indians with the Dutch explorers, who immediately offered them drafts of their strong liquor. The relation of the Indians of the island with the white explorers was not a happy one and a conflict began almost immediately.

The first mention of the Manhattan Indians is by Verrazano, in 1524, who gave some account of their appearance and costumes. Later, in 1609, we have another account. From that time on various explorers mention the Manhattan Indians, among them Delaet, Wassanear, Vanderdonck and DeVries. A fairly extended account of these Indians is given by Alanson Skinner in the "Report of the Director of the State Museum for 1911," and also in his monograph of "The Indians of Manhattan Island," published by the Torch Press.

The aboriginal occupation of Manhattan island seems for the most part Algonkian. Whether some earlier people once occupied the island is not known as much of the land is now covered by buildings. The Iroquois seem to have exerted some influence over the Indians of Manhattan, and fragments of Iroquoian pottery have been found at the northern end of the island. One of the finest Iroquoian pots extant came from an excavation at 214th street and 10th avenue and was found by Mr Calver. It is now in the American Museum of Natural History (see plate 193). The settlement of the Dutch upon the island caused the gradual expulsion of the Indians, who withdrew after several onslaughts by the colonists. There were massacres by the Dutch and English in which many hundreds of the Indians were murdered, a subject which has been well discussed by Mr Skinner.[1]

The principal collections of aboriginal material from Manhattan island are in the American Museum of Natural History.

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[1] The Indians of Greater New York, Miner, Cedar Rapids.

List of Sites[1]

1 Village site and shell heap in the Inwood section at the northern end of Manhattan island. This is at the foot of Dykeman street and along the shore of the Hudson river. Pottery and arrowheads were found scattered through the refuse. The shell heap and other evidences of occupation have recently been nearly destroyed by blasting and grading.

2 Shell heap at 220th street and Kingsbridge road, destroyed when the canal was dug. The shells were in a compact mass.

3 Village site and shell heap on Dykeman hill along the Harlem river from 209th street to 211th street. The deposit is comparatively extensive and contains cracked stones, animal bones, fragments of pottery, and in certain portions small pieces of glass have been found. The soil and the shell deposit have been plow torn.

In January 1895, Mr Calver found two interesting "dog burials." The first burial was unearthed at the summit of a ridge of soft earth at 209th street, near the Harlem river. The ridge, which was about 12 feet high, had been partly cut away for the grading of Ninth avenue. It was at the highest part of the hillock that a pocket of oyster and clam shells was noticed, from which a few fragments of Indian pottery which lay on the face of the bank had evidently fallen. The shells, upon inspection, were found to have served as a covering for the skeleton of a dog or wolf. Another burial was found on May 18th within 50 yards of the first burial. It had been covered with shells just as the first one, but had been disturbed by workmen. Mr Calver says: "The two canine burials were situated at a point just without the borders of the Harlem river shell heap and were distinct from it. The shells were found to be matched, hence it was concluded that they were thrown in unopened or eaten on the spot. As the skeletons were intact and the bones uninjured, all probability of the animals having been eaten is disposed of." These burials are common in this vicinity. No satisfactory explanation of them has been given; but Mr Calver thinks they were for some religious purpose, and suggests a relation to the "White Dog feast" of the Onondagas of this State.[2] It is certain that the pockets were in many cases used as fireplaces.

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[1] Information supplied mostly by Reginald Pelham Bolton and Alanson Skinner.

[2] New York Herald, May 26, 1895.

4 Village site in Seaman's Garden on the line of Seaman avenue and Isham street. This seems to have been occupied for some time and a considerable variety of relics have been found.

5 A large complete pottery vessel of the Iroquoian type was found at 214th street and Tenth avenue. It was discovered during the course of the municipal grading and had just barely escaped the spades of the workmen. It lay upon one side 18 inches below the sod line.

Village site on the Hudson at 213th street on the old "Century House" property. A banner stone, a stone tomahawk and several arrowheads, pestles, a paint cup and several bone articles were found by Bolton and Calver.

6 A trail ran around the rocks at the northern end of the island form the Dykeman village site to the mouth of Spuyten Duyvil creek. It was examined by the writer in 1904. The path was worn for more than an inch in the rock. There are rock shelters along the high banks west of the Dykeman tract site.

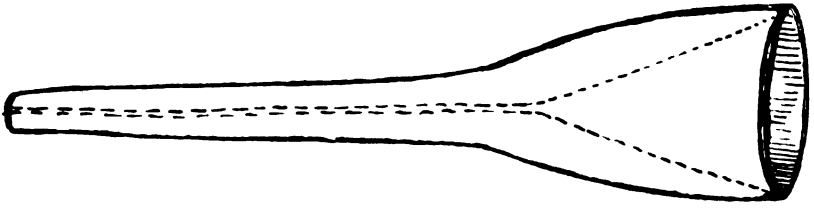


Fig. 81 Notebook sketch of steatite pipe found at Inwood, Manhattan, by Alanson Skinner, for the Heye Museum. Actual size.

7 Shell heaps east of Feildston road and north of West 247th street.

8 Shell heap north of West 247th street and west of Pascal avenue.

9 Village site on a small line overlooking a small lake near Canal street. This was called Shell Point, owing to the large deposits of shells.

Niagara County

List of Sites

1 A village site near the mouth of the Niagara on lot 1 in Porter township. This was also the site of the Seneca town of O-ni-a-ga-ra of 1718.

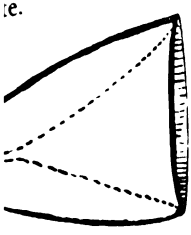
2 Village site at Lewiston on the present village plot. The occupation is regarded as Neutral.

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Plate 193



Pottery vessel found at [illegible] and [illegible] Park City. This vessel is [illegible] Museum of Natural History

3 Burial site at the Lewiston end of the electric road. Pipes and arrowheads were found. Mr Larkin mentioned two large burial mounds in this town.

4 Burial place on the Way farm, mentioned by Houghton, p. 323.

5 Earthwork and village site on lot 61 in Lewiston township and on the Tuscarora reservation. This is the site of the famous Kienuka (Ga-yen-no-ga), the capitol town of the Neuters. It is situated on a rocky ridge on the "mountain." Nearby are two mounds, a burial place and two ossuaries.

6 Pits one-fourth of a mile west of Kienuka. The Bureau of Ethnology reports one hundred and eighteen of these pits.

7 Ossuaries, three in number, one-half of a mile west of Kienuka.

8 Camp site in Pendleton on lot 42 one-half of a mile west of Pickards bridge. This site is on the Dennison farm.

9 Burial site of the W. C. Briggs estate near the school.

10 There are traces of Indian graves on Goat island (French, p. 450). Peter A. Porter gives information also concerning this site.

11 Camp site on Cayuga island. There are refuse pits and stone relics, including notched points.

12 Mound on Lake Ontario and near Eighteen Mile creek, mentioned by Turner (p. 26).

13 A mound in the town of Wilson contained human bones, and was 10 or 12 feet high and 100 feet around. It was three-fourths of a mile from the lake (Macauley, 2:113).

14 Village site on lot 43 on the shore of Lake Ontario, west of the mouth of Eighteen Mile creek.

15 A mound, fort and cemetery were on a ridge on lot 44 in Cambria, 8 miles east of the reservation. Turner saw the mound opened in 1823. Six acres were occupied, with a wall in front on the circular verge of the mountain. In the center was an ossuary 4 or 5 feet deep "filled with human bones, over which were slabs 5 feet. The sites of habitations are marked by remains of pottery, pipes and other evidences" (Turner, Hol., p. 26). Schoolcraft gives a plan and description but it may refer to a mere rocky ledge with a village site. General Lincoln gave an account of the two Tuscarora villages at that place in 1793. Land had been cleared and they found "a wall around it, the banks of which were visible at this time." Stone axes were obtained (Mass., Hist., 5:127). This may have been the work examined by Mr Reynolds on the north line of the reservation. Its area was 1½ acres and there was no wall on the north. A recent monumental stone heap was near it (U. S. Bur. of Eth., p. 512). The site is on the Benjamin Gould property.

Plate 104

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Plate 194

16 Camp site at North Ridge on the Barnes property on Twelve Mile creek, lot 8.

17 Camp site in Hartland on the J. H. Mayne property on Quaker road, lot 11. Notched points have been found.

18 Stone mound on the "Sharp farm" (U. S. Bur. of Eth., 1890–91, p. 512).

19 A ring fort was reported in the Pioneer history of the Holland purchase of western New York (p. 29), at the head of a deep gorge a mile west of Lockport. On examination Mr Reynolds, of the Bureau of Ethnology, thought this natural.

20 Burial place 2 miles east of Lockport on the John Wilson estate. Reported by T. F. Feeley, county clerk.

21 Camp site in Lockport on Locust street, near Willow.

22 Camp site on the A. Johnson property, lot 77, Lockport, on the banks of Eighteen Mile creek. Many notched points and some potsherds have been found.

23 Camp site on the farm of Asa Baldwin on the west branch of Eighteen Mile creek, one-half of a mile south of the lot 77 site. Notched points and drills have been found.

24 Camp site on a hill on the Beasoner property 1½ miles southeast of Wright's Corners, on the Slayton Settlement road. This is on lot 8, range 6. Notched points are reported.

25 Camp site on lot 10 at the bend of the road 1¼ miles east of Wright's Corners.

26 Ossuaries at Orangeport. These contained parts of numerous skeletons but reckless excavations by curio hunters have done much to destroy these depositaries. The opening of these bone pits is one of the most thoughtless acts of vandalism on record.

27 A mound is reported at Gasport.

28 A circular mound was once on the upper end of Tonawanda island. Bones, arrowheads and beads were found (Turner, Hol., p. 34). A larger mound once 15 feet high was opened by Squier in 1848. Below was "a circle of stones perhaps 10 feet in diameter, within which were small heaps of bones each comprising three or four skeletons. The bones are of individuals of all ages and had evidently been deposited after the removal of the flesh. Traces of fire were discovered upon the stones. The skulls had been crushed by the superincumbent earth. There were bone and horn articles" (Squier, p. 97).

29 Open-air workshop opposite Tonawanda island at the mouth of Tonawanda creek. About an acre strewn with flint (Turner, Hol., p. 34). Others occur on the river.

30 Village site in Wheatfield in the village of North Tonawanda and on a point of land where Tonawanda creek empties into the Niagara. The site which is now obliterated was reported to Mr Houghton by Dr H. W. Williams.

31 Camp site near the mouth of Mud creek.

32 Camp site in Royalton township opposite the mouth of Murder creek.

33 Camp site reported near the mouth of Cayuga creek.

Oneida County

List of Sites

1-2 Camp sites on and between Wood and Fish creeks near Oneida lake.

3 Camp site and workshop at Sylvan Beach, reported by Doctor Hinsdale.

4 Village site on the south side of Fish creek near the mouth, with a cemetery.

5 Doctor Hinsdale reports a cemetery nearby.

6 Village site 1 mile west of North Bay village reported by Doctor Hinsdale.

7 Village site on the James Sterling property near Durhamville.

8 Burial site on the J. Newland farm at Oneida Castle.

9 There was a recent fort on Cranston's farm at Oneida Castle east of the creek, probably the one built by Johnson in 1756. St Peter's Indian church was there also before the Oneidas went to Green Bay.

10 Cemetery west of the station was cut into by the West Shore Railroad.

11 Village site near the mouth of Oneida creek on the Sterling estate. Graves have been found.

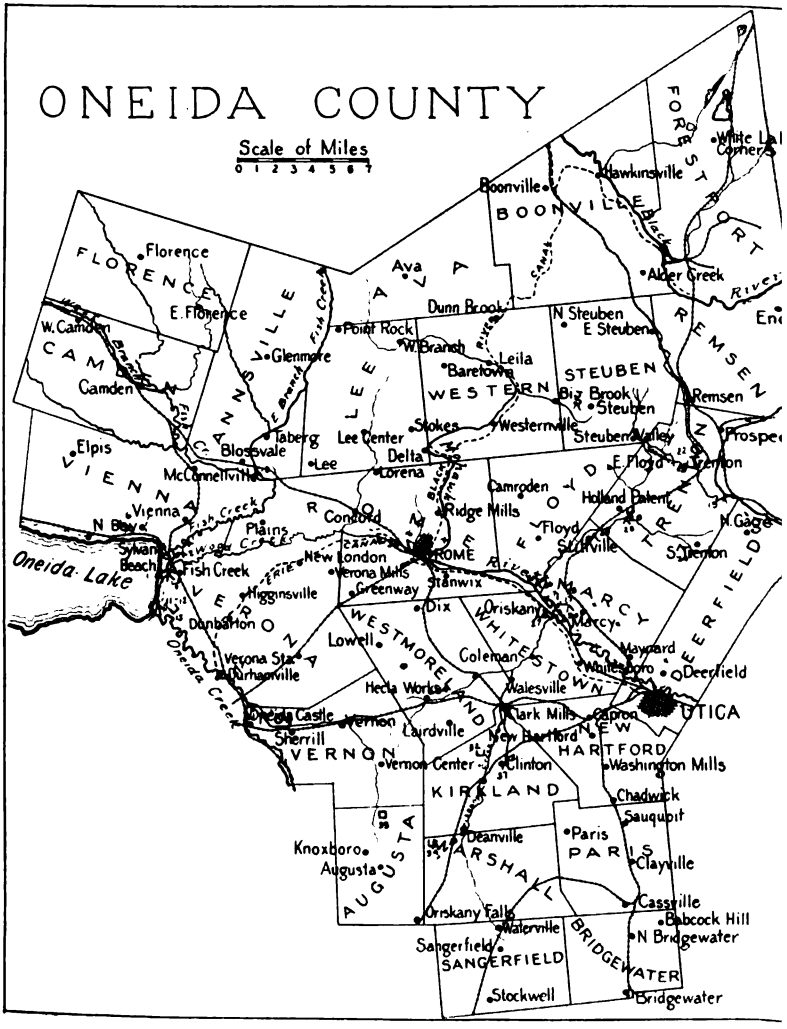
12 Large village one-half of a mile from the mouth, with early articles of bone, clay and stone. Net sinkers are common near the mouth of the creek.

13 Burial site on Oneida creek between Oneida valley and the lake.

14 Burial place on the Newland estate near Hecla.

15 Village site in Annsville at the forks of Fish creek. "Hearths were exposed here by the washing of the banks and large potsherds were found 3 feet under ground. Stone implements occur in the town" (Jones, p. 82). This site is undoubtedly near Taberg station at Blossvale.

Plate 195


ONEIDA COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
Florence
E. Florence
W. Camden
Camden
Elpis
Vienna
N Bay
Sylvan Beach
Oneida Lake
Fish Creek
Blossvale
Taberg
Glenmore
Point Rock
Lee
Lee Center
Delta
Lorena
McConnellsville
Boonville
Ava
Dunn Brook
W. Branch
Barelona
Leila
Hawkinsville
Alder Creek
White Lake Corners
N Steuben
E Steuben
Steuben
Big Brook
Remsen
Steuben Valley
Westernville
Stokes
Camroden
Ridge Mills
Holland Patent
E. Floyd
Floyd
Prospect
Vernon
S. Vernon
N. Gage
Rome
New London
Verona Mills
Greenway
Stanwix
Oriskany
Oriskany Falls
Dix
Lowell
Verona Sta.
Durhamville
Higginsville
Dunbarton
Oneida Castle
Sherrill
Vernon
Vernon Center
Lairdville
Hecla Works
Coleman
Walesville
Clark Mills
New Hartford
Clinton
Washington Mills
Mayard
Deerfield
Utica
Chadwick
Sauquoit
Paris
Clayville
Cassville
Babcock Hill
N Bridgewater
Bridgewater
Deansville
Knoxboro
Augusta
Waterville
Sangerfield
Stockwell
Marcy
Whitestown
Westmoreland
Florence
Camden
Annsville
Lee
Western
Steuben
Remsen
Trenton
Floyd
Marshall
Kirkland
Paris
Bridgewater
Sangerfield
Augusta
Vernon
New Hartford
Deerfield
Boonville
Forestport
Oneida River
Fish Creek
Black River
Canal
Erie Canal
Sauquoit Creek
Oneida Creek
Verona Creek

16 Village site covering the area of ward 1 in the city of Rome, reported by Seth W. Pride. Pottery and many flints have been found.

17 Large village site on lots 167 on the north bank of the Mohawk in Marcy. H. A. Pride reports the main village as on lots 4, 5 and 6.

18 Camps on Canada, Mud and Whittle's creeks and on Brandy brook near Rome. Small sites are here frequent.

19 An early village site on Steuben creek, 6 miles northeast of Holland Patent, near the mouth of the creek. The sites in this prehistoric group average about an acre and were reported by H. A. Pride of Holland Patent.

20 Burial site on the Hicks property near Holland Patent.

21 Village site west of Steuben and north of the creek.

22 Village site at Trenton village 4 miles east of Holland Patent and on Cincinnatus creek.

23 A village east of Holland Patent and quite near it on the south side of the creek.

24 Village site just west of South Trenton.

25 Village site near Stittsville on the east side of the creek.

26 Two camp sites west of Nine Mile creek and near its mouth in Marcy. One is near the creek and the other west of it and opposite the Oriskany monument.

27 Burial place discovered in enlarging the canal in Oriskany in 1849. Ten or more skeletons were found in logs hollowed out by burning. They had medals and ornaments. One medal of George I was dated 1731. The others were dated from 1731 to 1735. In two instances the heads of three or four skeletons were placed together and the bodies radiated from these. There were ear and nose ornaments of red slate and some pipes (Jones, p. 829).

28 Burial place on the north side of the Mohawk opposite the mouth of Oriskany creek. The tradition is that the Indians who fell at Oriskany were buried there. The relics Mr Pride found there, however, were all early.

29 Burial place near Deansboro 1 mile north of Oriskany.

30 Village site on the north bank of the Mohawk, in Marcy, and one-half of a mile east of Oriskany. This spot on the tableland was called the castle. On this was a second growth of timber in 1796. Iron axes were found there and from twenty to thirty deep caches. A low mound was 18 inches high and from 8 to 10 fe[illegible] across (Jones, p. 244).

31 Camp sites extending all through Marcy to Deerfield on the terrace north of the river. All but one are early. One is midway and none had pottery. Articles rude.

32 Burial place near Hamilton College where skeletons were exhumed. The middle one lay in an opposite direction to the others and had a metallic cross on the breast (Jones, p. 829).

33 After the revolution the Oneidas left Oriskany and part came to the Mile square in Augusta, which had long before been occupied by them (Jones, p. 96).

34 Burial site west of Deansville at McMallins Corners.

35 Near Oriskany creek on both sides in Marshall and Kirkland lived 400 Brotherton Indians, mostly near Deansville (Jones, p. 247).

36 Village site on the Lumbard property near Clinton. This is called the "Indian lot."

37 Village site near Clinton on the McConnell estate.

38 Burial place of whites and Indians west of Fort Bull and south of the canal.

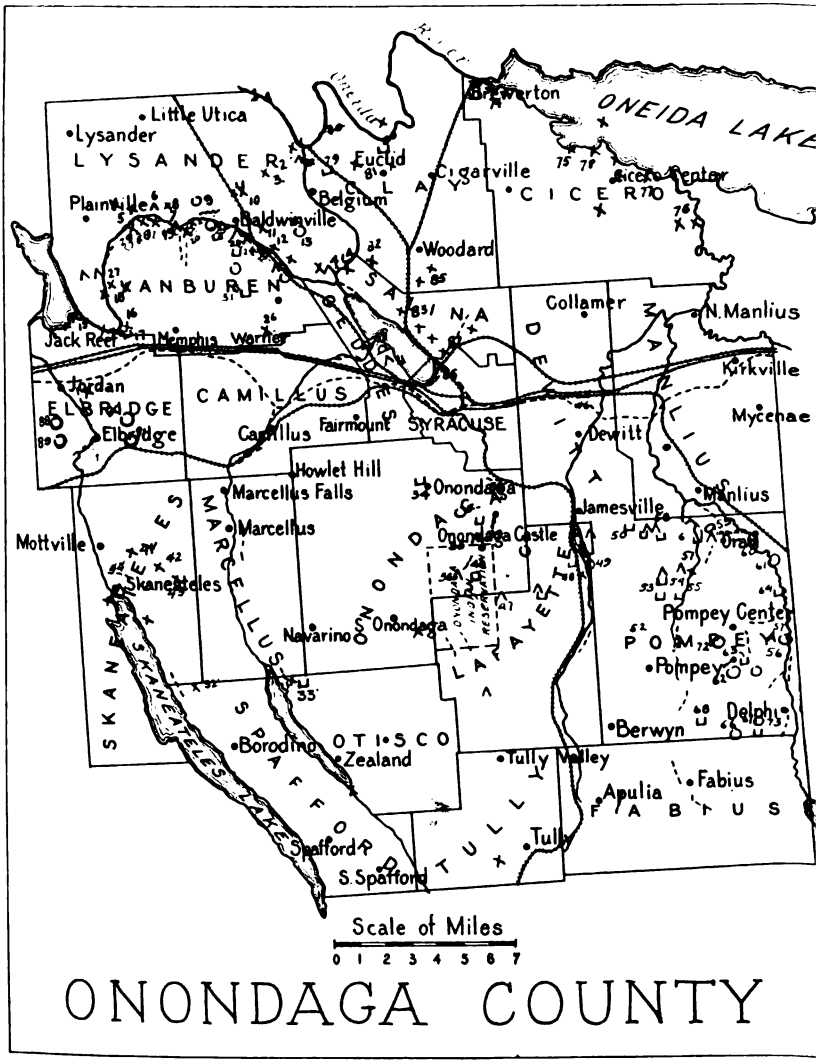
39 Village site on Oriskany creek just northeast of Deansville.

Onondaga County

General occupation. Onondaga county contains perhaps more abundant traces of aboriginal occupation than any other in the State, a fact that was noted by Squier.

At the time of the discovery the Onondaga Indians had their villages here. The county indeed now covers a principal portion of the Onondaga country and was the center of the Iroquois confederacy. For about 100 years the Onondagas had their towns on the hills bordering the valley of Limestone creek, later shifting to the banks of the Butternut and then came down into the Onondaga valley where most of them resided in the middle of the eighteenth century. Numerous traces of their village sites are scattered through the townships of Fabius, Pompey and Lafayette, with others northward through Onondaga to Oneida lake and westward into the towns of Elbridge, Van Buren and Lysander. The hilltop fortifications and village sites here do not differ materially from those in other parts of the Iroquois region in the State. The most important research in the county has been conducted by the Rev. W. M. Beauchamp, who has made detailed observations of the many sites that have come to his notice. Most of the descriptions of sites in this county are by his pen.

Plate 196


ONEIDA LAKE
Little Utica
Lysander
LYSANDER
Euclid
Belgium
Cicero
Cicero Center
CICERO
Plainville
Baldwinsville
Woodard
Collamer
N.Manlius
Jack Reef
Memphis
Worden
Kirkville
Jordan
ELBRIDGE
CAMILLUS
Elbridge
Camillus
Fairmount
SYRACUSE
Dewitt
Mycenae
Howlet Hill
Marcellus Falls
Onondaga
Manlius
Marcellus
Jamesville
Mottville
Onondaga Castle
Skaneateles
Pompey Center
Navarino
Onondaga
POMPEY
Pompey
Delphi
Berwyn
Borodino
ONTISCO
Zealand
Tully Valley
Apulia
Fabius
Spafford
Tully
S.Spafford
Scale of Miles
0 1 2 3 4 5 6 7
ONONDAGA COUNTY

As is the case in other regions occupied by the Iroquois, an earlier people preceded them though it does not appear it was necessary for the Iroquois in taking possession to dispossess the former inhabitants. Most had departed long before the Iroquois came. Numerous traces, however, are found along the Seneca river, Onondaga lake and the eastern end of Oneida lake. Some of the most beautiful specimens of polished slate found within the State have come from these localities and a collection of more than 20,000 specimens from this general region was acquired by Otis M. Bigelow who went over the region for fifty years picking up his specimens. This important collection is now in the archeological section of the State Museum.

It is interesting to note that this center of Onondaga Indian activity, the traditional home of Hiawatha, is even today the homeland of the Onondaga Indians who have a considerable reservation in the townships of Onondaga and Lafayette. On this reservation still appears the national council fire of the Iroquois Confederacy.

List of Sites[1]

1 Camps on lot 42, in Lysander, on the west side of Oswego river at Phoenix. A fishing village was there when Father LeMoyne passed through this region in 1654.

2 Several camps on the land of D. Porter and A. Haikes, lot 71, in Lysander on the west bank of the Seneca river. Early relics and a little pottery. At this rift the first English military road crossed the river.

3 Village site on A. Stuart's farm, lot 70, Lysander. Arrowheads and pottery have been found.

4 Two small village sites on and by the Adams farm on the west side of the Seneca river and another north of the mouth of the state ditch, lot 96. Flint arrowheads and rude stone implements, but little pottery.

5 Village site on the Hickey farm, lot 75, Lysander, with fine stone implements but no pottery. It is a little back of the river. Just northeast of this on sandy land are fireplaces with a few arrowheads, drills and coarse pottery.

6 A small hamlet lies farther west by the Voorhees brook on lot 74, and near this a cache of flints was found. These sites are west of Baldwinsville on the river road.

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[1] Based almost entirely upon information secured from Dr W. M. Beauchamp, contained in N. Y. State Mus. Bul. 32.

7 A stone eelweir is just below this site and in the river. It has three bays of unequal length reaching up the river as it tended toward the north shore. It was built of field stone and was about 1200 feet long. It reaches the surface now only in very low water. Part of another is below the Jack's reef bridge, and others are found elsewhere, as the Onondagas built many within historic times.

8 Two hamlets of considerable size on J. Adsit's land, lot 76, close to the river on both sides of a brook. They seem distinct and have the usual relics but no pottery. There are several camps between this and the last.

9 Apparently a stockade town on the hilltop back of what was Charles Emerick's house and high above the river road on lot 78, Lysander, north of the Seneca river. All the usual relics and abundant pottery but no drills or scrapers, which are absent from all Iroquoian forts. A fine spring on the terrace below. Shell of Unio complanatus abound. A bone fishhook was found.



Fig. 82 Effigy of an animal head. Baldwinsville. x⅓.

10 Two hamlets and a cemetery on G. A. Bigelow's land on the hill in the north part of Baldwinsville. In the hamlets were pipes, arrowheads and celts. There were no relics with the skeletons, which lay horizontally with the knees drawn up. There were camps all through the present village.

11 Extensive hamlet on the south side of Float bridge, lot 86, Lysander, on the east bank of the river. A great deal of pottery with other relics, but no scrapers or drills.

12 A camp south of the railroad bridge and east of the river on lot 87, with early relics and pottery. On the opposite bank were fireplaces with pottery.

Small hamlet at the Red rock rift, lot 93, one-half of a mile below.

13 A circular earthwork on lot 89 of about 3 acres is now obliterated. It was about 360 feet in diameter and the road passes through the center. Pottery is abundant with the usual Iroquoian articles. It is about 3 miles from Baldwinsville and 1½ miles from the river

on either side, but flat sinkers are found, suggesting a question of use. Clark reported a ditch around it 4 feet deep with a bank on each side of this, and a gateway. A man who cleared the land told the writer that there were merely two broad depressions. It is on level land and there is a small site one-half of a mile away.

14 Two or three hamlets near the north end of Cold Spring bridge, lot 100, on both sides of the road, with abundant relics and with pottery on the east side.

15 Three hamlets on the south shore of Cross lake, on lots 31, 32 and 33, Elbridge. Stone relics but no pottery.

16 Three hamlets and scattered lodges on lot 34, mostly on the Elliott farm. The central one was long occupied and yielded many fine relics but scarcely any pottery.

17 There was a camp on the river just west of Carpenter's brook and several east on lot 35. One hamlet was at the mouth of the brook and two farther east on the Bidwell farm. The cemetery for the latter place was south of the road with both early and recent relics. Clark says, "At Jack's reef when the whites first settled this town the Onondagas had a large settlement with an extensive clearing and a valuable orchard" (Clark, 2:328). No early travellers mention this.

18 Village and earthwork on the Somes farm, lot 16, Van Buren. These are on a hill where relics are said to have been abundant and where an old settler of good judgment remembered a palisade line. Doctor Beauchamp found no traces of occupation on the hill but there were small camps toward the river.

19 A hamlet on lot 4 and west of Dead creek. It was an early site but not long occupied.

20-21 Two hamlets were east of Dead creek on the river bank. These were on the Wright farm, lots 4 and 5, and were quite different in character, the eastern one having rude relics. The western one probably represented several camps.

22 An extensive stockade was on the Crego farm, lot 6, near the south bank of the river. The area is about 400 by 500 feet and the usual relics are found, among the rest the sharp barb of a bone fish-hook and a flat Unio bead. Another stockade was directly across the river.

23 Two hamlets and several camps were on the river bank on the west line of Baldwinsville, town lot 7. One camp was recent. Others occur at intervals along the river as far as the island. These are mostly early.

24 On the south side in Baldwinsville a village and cemetery were a little southeast of the village cemetery. Relics are found with the skeletons. Another village was mostly on the east side of Syracuse street. A few lodges and graves were on the west side. All these were on land sloping to Crooked brook. A few rods southeast was a cemetery in sand loam out of which the writer saw twenty skeletons taken at one time. No special order was observed in burial but the knees were generally drawn up. Under almost every head was a small pebble, the loam being free of stones. In laying pipe a few rods southeast of the bridge in 1895 an extended but small skeleton was found between two layers of cobblestones. No articles were in the grave.

25 There was a circular stockade on L. Tallmage's farm, lot 13, and 1½ miles south of Baldwinsville, south of a small stream and west of the road to Warner. A plan is given in figure 75. It occupied a low broad hill, commanded by a higher one across the stream. It had a gate on the north side, and the diameter was about 300 feet. The post holes were a step apart.

26 A small hamlet was on Mrs C. Lamerson's farm, lot 41. Arrowheads, etc., are found.

27 On lot 17 there are lodge sites near the river.

28 There are also camps on the farms of Messrs Spore and Pelton on lot 3 near the river.

29 Others occur on H. B. Odell's farm on lot 2, and all along the valley of Dead creek implements are found.

30 There are lodges near the river on Lester's and Tallmage's farms, lot 14.

31 Two large stone heaps covering human bones in E. L. Tallmage's woods, lot 21.

32 A hamlet on the Mason farm, lot 68, Spafford, was about a mile east of Five Mile point on Skaneateles lake. The relics there and nearby are early.

33 A few years since some graves were opened on lot 72, Otisco, which contained several long stone tubes. This was near Amber east of Otisco lake, and several caches of flint pieces have been found in that vicinity. Arrowheads occur all along Nine Mile creek to Onondaga lake.

34 A little north of Onondaga Hill village there was a large cemetery with hundreds of graves (Clark, 2:136).

35 Half a mile south of Onondaga Valley village, on Webster's mile square and on the first terrace west of Onondaga creek, was the stockade built for the Onondagas by Sir William Johnson in 1756.

It was 150 feet square with blockhouses on two corners. It was burned in 1779 but traces were found by the first settlers. The stone graded way to the creek remains.

36 A village was burned a mile farther south and another beyond this.

37 There are several burial places on the east side of the creek, where the Onondagas lived from about 1720 to 1750. The relics are mostly recent.

38 Many early articles occur near the old arsenal on the east side of the valley, lot 121, Onondaga.

39 A small site on the Henderson farm, lot 161. This was an early hamlet having pottery and arrowheads. Lodges were farther south.

40 Council house and village on the present reservation. Some relics appear along Onondaga creek and in South Onondaga, but no villages.

41 There were no villages in Skaneateles but small camps and occasional relics appear, some being of early types. One camp was on the farm of Henry Moses, lot 20.

42 Relics were frequent on R. Curtis's farm, lot 22.

43 There was quite a camp on the east side of a stream and south of the direct road to Marcellus on lot 29. Early relics.

44 A few articles have been found near Skaneateles village and Mandana.

45 The Deep Spring of early note is on the county line east of Fayetteville. Tradition places a stockade there but there are no traces of permanent occupation. Arrowheads and recent relics were once frequent.

46 Burials in a gravel bed on lot 42, De Witt, now East Syracuse. Early relics were found in the twenty burials found here in 1878.

47 Near the east line of the reservation and on lot 13, Lafayette, was a recent village with an orchard. This was visited by John Bartram in 1743 when it had ten lodges. The graves were very regularly arranged (Clark, 2:270).

48 There was a cemetery west of Butternut creek and about a mile south of Jamesville in the same town. Recent relics.

49 The stockade burned at Frontenac's invasion was on the Watkins farm a mile south of Jamesville and east of the reservoir. This was on lot 3, Lafayette, and the change in the town has occasioned much confusion. Squier noted an account from the New York magazine for 1792 and was led to place it in Cayuga county. It has been described as two places, one in Pompey and the other in Lafay-

ette. According to the French, it was a triple stockade built under English supervision. Clark's plan indicates an earthwork, almost rectangular surrounded by an elliptical double stockade intersected by a cross line at the short axis. At the white settlement the lines were distinct. At the northwest corner was a bastion and there were several heaps of refuse. A curving ditch 40 rods north was a puzzling feature. There were caches and abundant recent relics. Frontenac described the fort as large and strong. The town appears on Romer's map of 1700 on the east side of Kiechioiahte creek.

50 A recent site on the Gates farm, lot 5, Pompey, is known as Bloody hill. It is 2½ miles southeast of Jamesville and is largely a cemetery.

51 A smaller early village on the Reed farm one-half of a mile northwest of Watervale on lot 19.

52 Recent and early cemeteries on the Sedgwick farm, lot 27, 2 miles northwesterly from Pompey Hill. Mostly recent relics.

53 Recent cemeteries on lots 28 and 29 a mile west of Watervale.

54 Cemeteries on Luke Fitch's farm near the road to Watervale and on adjoining land on lot 19. There was also a recent village site here a little farther north. This seems the village mentioned by Greenhalgh in 1677.

55 A large early village on a hill on J. Christopher's farm, lot 6, a mile east by south of the last. Iroquois relics.

56 Fort above the creek on lot 54, on the Roberts farm.

57 Village site on the Benedict and Wright estates on lot 54. Pompey.

58 From a recent site on the Hibbard farm, lot 6, great quantities of iron and other articles were taken. Circular elevations supposed to be for lodges were reported regularly arranged in rows. Clark says also that "on the late Doctor Western's farm could be distinctly traced the remains of a small fortification with a burying place. . . . Not far from this last, on the farm of the late John Clapp at an early day were plainly traceable the lines of an earthen fortification." All relics were recent.

59 Indian hill is on lot 9 north of the road, and was described by Clark as on the farm of Isaac P. Jobs. The French, who came there in 1654 and in following years, speak of the palisades and gates. In 1677 Greenhalgh said it had no defense. Clark said that early settlers remembered distinctly an earthwork there with walls 4 or 5 feet high, which had one gateway and was circular with a diameter of from 300 to 350 feet. The general site is an ellipse about 1050

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Plate 197

feet long by 450 feet wide. It is 2 miles south of Manlius village occupying the full width of the hill. The large cemetery is farther north and on the edge of the east ravine. Recent relics. There are many memorials of the French missions and a boulder remains on which the Onondagas sharpened their implements. This site is on the Fieldman farm.

60 Clinton said that there was a cemetery of 3 or 4 acres a mile eastward. This was on the Scoville farm, lot 11, near Oran village.

61 Indian fort is in Pompey, on lot 23, not lot 33 as usually stated. A bank and ditch crossed it, running in a southeast line, according to Clark, but really southwest. This was 300 feet long and there were lodges on both sides. It has always been called a recent site but the writer found no evidence of this fact and defers to others. The large grooved boulder has been removed. The site is locally known as Temperance House fort and is on the property of Simon Murphy and Willis Clark.

62 A stockade was on the Indian knolls, on the Lawrence farm, lot 68, a mile south of Pompey Center, east of the creek. Indian and European articles are found, but no French. It was reported at an early date as an oblong stockade of 2 acres. It is somewhat triangular and is about 675 feet long with a width of 360 at the broad end to the south. No council wampum appears and but few shell beads. It may be dated about 1640. This fort is on the property of Messrs Doyle and Elbridge.

63 Indian spring is east of this and of the road on a small stream. On either side of this stream were the two grooved boulders now in the state collection. Farther east on the hillside was a scattered early site with graves.

64 There was a cemetery near Hill's, lot 33. South of this, but in Madison county, was the stockade already described, but which was an Onondaga town.

66 Circular stockade on the south line of Pompey, lot 98, extending into lot 8, Fabius, is on a hill. Nearly a quarter of the fort is still in woodland. It had a diameter of about 225 feet. Some European articles are found.

67 An early village located 2½ miles southwest of Delphi.

68 Cemetery about a mile northwest of the last, on lot 97, west of Carpenter's pond. Brass kettles were found here.

70 Two mounds and two or more hamlets were near the Onondaga outlet in Geddes. One hamlet now lies east of the present outlet. One is on the top of the hill west of this and on the south side of the

road. Camps lie westward of this along the bluff. The relics all early. One burial mound in the woods at Long Branch was feet long and 3 feet high when examined by the writer, but was larger. Six skeletons and some early relics were afterward t out. This mound was oblong but the other was circular and farther southeast at the base of the sandy bluff. In it were shel and stone relics.



Fig. 83 Effigies from pipe bowls from Onondaga county site Bigelow collection, State Museum.

71 Several camps were about Pleasant beach near the we of Onondaga lake, yielding fine relics and extending from the nearly to Nine Mile creek. No Iroquoian traces are found o west side of Onondaga lake and but a few on the east.

72 The Sheldon fort is on lot 69, Pompey. It occupies the commanding situation of any in the county, and is on a lo steep bluff south of the Hollow road and of a stream flowing East Limestone creek. The bluff is nearly or quite 300 feet precipitous on the north side with an abrupt slope on the south. There is a depression on the west. The summit of about 450 feet from west to south, with a width of the north end and of the east. It was occupied years and seven acres are [illegible] the western [illegible]

73 [illegible] on H[illegible]

the Fabius line. Clark located it on lot 100, which it almost reaches. His plan is too large and broad. Most of the fort is now obliterated, but it was long and narrow, about 250 by 750 feet. Most of the lodges were near the north end. The two grooved boulders in the southeast corner have been removed. Post holes yet remain in a shallow trench, averaging about 2 feet from center to center, half the distance stated by Clark. He said that bodies were buried here "one row with their heads to the west and the next row with their heads to the east." Another odd statement of early settlers was that "the palisades were set in the bottom of a ditch which was in some places 6 feet deep." Recent articles are found.

74 There were early and late camps at Brewerton on both sides of the river and many stone plummets and bone harpoons are found. Burial places are also found on both sides, the one on the south side being in the present cemetery. Not far south some hamlets were mentioned by early missionaries.

75 There were small camps on lots 32 and 33, Cicero, about South bay on Oneida lake, and another farther east on the Eastwood farm, lot 46.

76 Hamlet was a little west of Bridgeport on lot 73.

77 Another was on the lake shore, lot 47, and east of the present cemetery, and another in the same lot near Chittenango creek.

78 Small camps as on the islands in Cicero swamp and on Frenchman's and Dunham's islands in Oneida lake are here.

79 A cemetery with some lodge sites on the Childs farm, lot 22, Clay. Earthen vessels were found with the skeletons near the Seneca river.

80 Cemetery and hamlet on lot 16, Clay, east of Schroeppel's bridge on a bluff south of the river. Early and fine relics. Camps also on the north side.

81 Hamlet on the Walters farm, lot 23, and north side of the road. Many fireplaces but rude articles.

82 Another on lot 74 has afforded fine relics. There are other scattered camps of little note.

83 The Kaneenda site of 1700 is the only recent site near Onondaga lake except about the old French fort south of Liverpool. Kaneenda was on the creek and south of the lake, within the city limits. An early site may be placed with this on an elevated spot in the marsh west of the creek where Doctor Hinsdale has discovered much of interest. There is also a small early site with rude implements, in the third ward of Syracuse near the creek. Besides these

there was a recent village as well as a cemetery not far from the present high school.

84 Two or three camps occur on lot 62, Salina, near the northeast angle of Onondaga lake and scattered lodges toward the outlet. The spot shows no permanent occupation and relics vary greatly in character.

85 Camps farther south and hamlets toward the north line of Liverpool and east of the lake and on both sides of the stream on L. Keith's farm. Relics of an early character occur at intervals all along this shore.

85 The French fort and mission of 1656 were on lot 106 north of the Railroad bridge in Salina. Early and recent relics are found here. The plan of the fort in Clark's Onondaga, however, is of that erected by Frontenac in 1696. The plan was made by Mr. Geddes in 1797. Clark erroneously said that some of the pickets remained in 1794, adding that the work embraced half an acre. The Rev. J. W. Adams said that traces of this fort could still be seen in 1834, and that Doctor Holbrook, a settler of 1795, told him that there was a picket of 4 acres, with a fort of 1, having a blockhouse in the northeast corner, and a bastion at one angle. It is probable all these accounts are somewhat confused with the fort of 1756, built at Onondaga Valley by Sir William Johnson. Frontenac's fort seems to have been built on the old mansion site. Around the latter some Onondagas lived.

86 Early relics have been found all along the line of salt vats on the bluff. Clark reported a large cemetery at Greenpoint but gave no details. It was at the base of the bluff.

87 Camp or hamlet north of the marsh and half a mile east of the lake. Recent.

88 A group of notable earthworks now obliterated was south of the canal in Elbridge and seems to belong to the Cayuga group. In early notes these are referred to Camillus, but the division of the town placed all in the present town of Elbridge. The one on Fort hill, lot 70, Elbridge, was first mentioned by the Rev. Thomas Robbins in 1802, in his recently printed journal. He described it as "nearly four square, the corners a little rounded, facing very nearly the cardinal points. It is a little more than 20 rods from north to south and from east to west a little less." He differs from others in describing two gates on the west side with one on the east, but was probably correct. He said, "On the west side are evident marks of violence, places in the wall being thrown down into the

Plate 198



Types of lunate and pick-shaped bannerstones from Onondaga county sites

ditch." De Witt Clinton described it as "elliptical in shape" and said that it covered 3 acres (Squier, p. 32). Mr Clark made it a square of 4½ acres. He adds that "On the south side were numerous holes about 2 feet deep and 6 feet apart as if an intrenchment or circumvallation had been commenced and not finished." In his plan these appear in a straight line. They were probably caches (Clark, 2:326). Doctor Beauchamp examined the spot with Mr Hunter, who had owned the place since 1840. The work is on a broad elliptic hill and extended some distance down the sides. The long axis is from north to south and the area about 2½ acres.

89 There is an account of the forts on lots 70 and 81, Elbridge, in a journal kept by Lieut. Col. William Stevens, who visited them in October 1791. In Onondaga's centennial (p. 685), these are incorrectly located on lot 84. The description is good, but it has few details regarding the smaller work. The timber seemed a second growth in and around the fort. The work on lot 70 was elliptic, the longest diameter being north and south, inclosing about 2¾ acres. There was a gate in the east as well as the west bank. "The butments on each side are plain to be seen." In both cases the trees on the wall were larger than the others, but this was due to the more rapid growth in made soil. (Beauchamp.)

Doctor Beauchamp gives his own plan of the small fort on lot 81, one-half of a mile southeast of the last, and a mile west of Elbridge village on the old Squire Munro farm. Mr Clinton described this as half as large as the last and of the same form. Unio shells are also found here (Squier, p. 32). Mr Clark said the bank and ditch could easily be traced in 1793 and that the area was 1½ acres. It seems less than this. He said there was a gateway on the west side about 12 feet wide. His figure makes this wall slightly convex and all the others straight (Clark, 2:325): There is an abrupt descent on the west side into a deep ravine, and on the south there is a quick slope to the Munro house. The east and north walls were on level land.

90 Fort described by Mr Clark on lot 73 a little east of Elbridge village. "On the site of Mr Caleb Brown's house and garden, including a portion of the highway, was an ancient circular fort, containing a little over an acre of ground, within which were evidences of a blacksmith shop, and many common relics" (Clark, 2:327). All Elbridge forts, however, were prehistoric (Beauchamp).

91 Circular inclosure on lot 84, on the farm now owned by Caleb Brown (1849) about 40 rods south of the road was a circular fort which covered over 3 acres of ground (Clark). There was a wide

gate on the west and a smaller one on the northeast side. A cache was mistaken for a well and near "the western gateway were found several pieces of timber, having the marks of iron tools upon them." Pottery and shells were abundant. He also described an open village on lot 83 south of Elbridge village where he said "hundreds of grooved stone axes had been found, and numerous arrowheads as well as a stone for sharpening tools" (Clark, 2:324). Grooved axes are so rare in New York that the writer made special inquiries and found that this was an error. None is known there (Beauchamp).

Ontario County

General occupation. Ontario county and the region about it was one of the most important regions occupied by the Seneca Indians during the middle colonial period, as is attested by the several villages and the many evidences of occupation. A review of the sites in this county shows that there were places occupied in precolonial times by the Senecas, the best known site of this earlier period being that on the Reed farm in the town of Richmond, and on the outlet of Hemlock lake. So important a portion of the Seneca county or Sonontouan was this territory that the various French invaders who sent their troops against the Iroquois directed much of their energy to the destruction of the Seneca villages and farm lands in Ontario county. The French missionaries as early as 1655 undertook to record some information about the number and character of the Seneca towns; this work was carried on by Father Chaumont and Dablon. In the Jesuit Relations we are told that the account of the Sonontouans contained two large villages and a number of small ones besides the Huron village of St Michel. A later record by Father Jocques Fremin in 1668 names four villages within the jurisdiction of St Michels mission. The three villages which he named out of the four are Gandachiragon, Gandougarae, Gandagora. The second named was composed of refugees and captives from three extinguished nations, the Neuters, Hurons and the Onontiogas.

In 1669 Brehant de Galinee, one of the companions of Count LaSalle, described one of the principal villages of the Senecas as being on the brow of a hill and in a clearing about 2 leagues in circumference. This town he said was composed of a "lot of cabins surrounded with palisades of poles, 12 or 13 feet high, fastened together at the top and planted in the ground, with great piles of wood the height of a man behind these palisades, the cabins being not otherwise flanked, merely a simple inclosure, perfectly square." Sonontouan, in his description, was "composed of four villages,

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Plate 199

two of which contained 150 cabins each and the other two about 30 cabins.[1]

In 1667 when Wentworth Greenhalgh visited the Seneca towns he wrote: "The Senecques have four towns, viz. Conagora, Tiotehatton, Canoenada and Keint-he. Canagora and Tiotohatton lye within 30 miles of ye Lake ffrontenacque, and ye other two ly about four or five miles apiece to ye Southward of those. They have abundance of Corne. None of their townes are stockadoed.

"Canagorah lyes on the top of a great hill, and in that, as well as in the bignesse, much like Onondago, contayning 150 houses, northwestward of Caiouge 72 miles. . . . Tiotohatton lyes on the brincke or edge of a hill, has not much cleared ground; it is near the river Tiotehatton, wch signifies bending. It lyes to westward of Canagorah about 30 miles, containing about 120 houses, being the largest of all the houses we see, ye ordinary being about 50 or 60 foot long with 12 or 13 fires in one house. They have good store of corne, growing about a mile to the Northward of the towne.

"Canoenada lyes about four miles to ye Southward of Canagorah; conteynes about 30 houses, well furnished with corne.

"Keint-he lyes aboutt four or five miles to ye southward of Tietehatton; contaynes about 24 houses well furnished with corne. . . ."

The writer of the Jesuit Relations for 1679 differed radically from Greenhalgh in his enumeration of the villages. He said that "25 leagues farther on [from Cayuga] are situated the three villages of the Sonnontouans."

It would appear from these descriptions, contradictory as some of them are, that there were at least four principal villages of the Senecas, and these of considerable size. Attempts have been made to identify the locations of these various sites and with some degree of satisfaction. The site of Gandagora without doubt is Boughton Hill site near Victor, every detail of evidence satisfying the earliest description. Gandougarae has been identified with the site of Mud creek, north of Wheelers station in East Bloomfield, and southeast of Gandagora. Totiakton is in Monroe county, near Rochester Junction. It is also known as "La Conception" in the French accounts. Keint-he was most likely situated just north of Lima village. Some writers gave names which are not easy to identify, both on account of a variation in spelling and difference in the name. These villages of the middle colonial period, for various economic

[1] Narrative of De Brehant de Galinee, translated by J. H. Coyne. Ont. Hist. Soc. Pub., v. 4.

and strategic reasons, were sometimes moved from the locality in which one explorer might have identified them to some other point. Totiakton seems to have been removed three or four times and it is not unlikely that the Dann farm site on Spring creek, southwest of Honeoye Falls, may have been one of these sites. The Warren farm site on the Honeoye outlet in West Bloomfield has not been identified with any known village. The same is true of Factory Hollow site, in the same township. The Warren site was so extensive in the occupation that it seems somewhat peculiar that the earlier explorers did not know about it and mention its name.

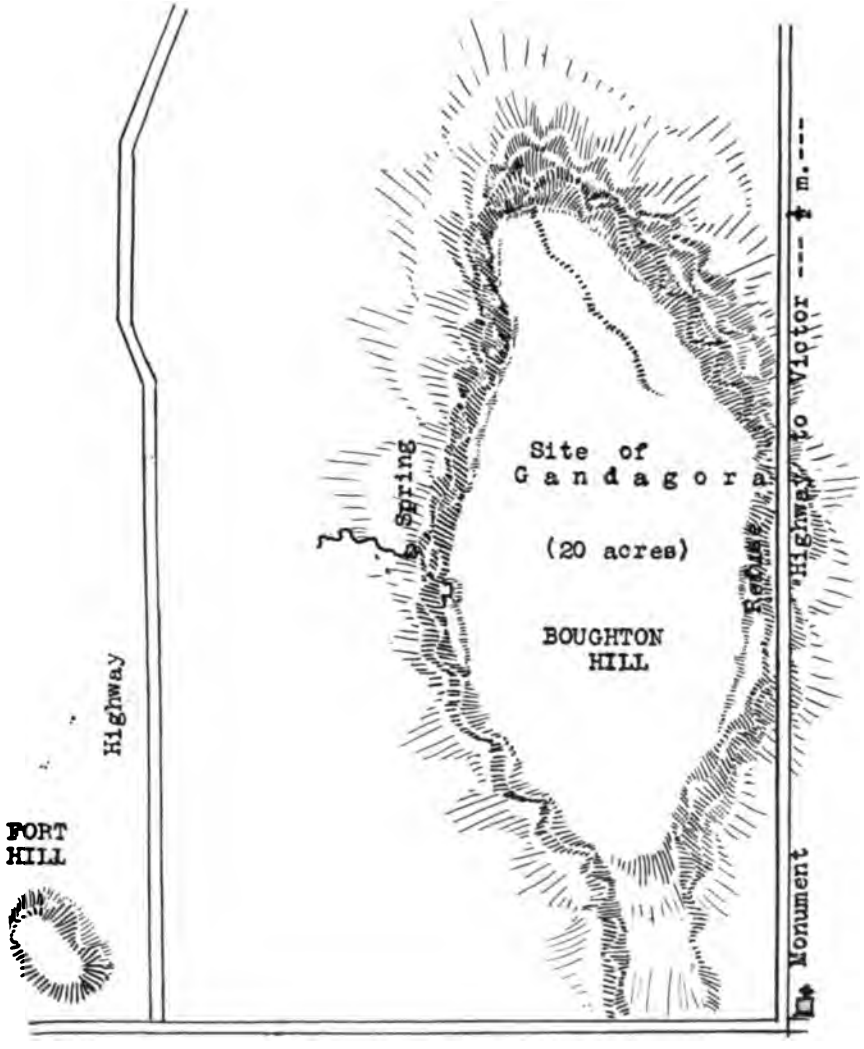
It is quite evident from a review of the sites and judging from the relics found within them that the migrations of the Seneca were to the northward during the middle colonial period, beginning on the west with the Reed site in Richmond and pushing northward along the valley of Hemlock and the Honeoye, and in the center of the county pushing northward from the valley of Canandaigua lake. This would explain the early character of the southern hilltop sites and also the prevalence of European material on the northern sites, as Totiakton and Gandagora, both of which bear evidence of having been destroyed by the French troops. The raids against the Seneca in 1687 apparently scattered them throughout this region and changed the character of their villages so that few of them after this period seemed to have been protected by palisades or built on hilltop strongholds. The change seems largely to have been brought about by the possession of firearms, which merely augmented their military power. Most of the sites in this vicinity have been thoroughly examined by Fred H. Hamlin, E. Gordon Lee, Frederick Houghton, A. H. Dewey, A. C. Parker, H. C. Follett, and several of them by Colonel Moulthrop of Rochester.

The Iroquoian occupation, however, was preceded by that of an earlier people who left polished stone implements such as birdstones and stone tubes. Certain Algonkian settlements also seem to have been established in the earlier days before the Iroquois but the sites of these occupations are not so well marked as those of the Senecas, who stamped the evidence of their occupation deep in the soil and wrote ineffaceable evidences in their numerous graves.

List of Sites

1 Village and palisaded hilltop stronghold on Boughton hill 1¼ miles south of the village of Victor. This famous site is on the farms of M. E. McMahon, W. B. Moore and W. J. Greene. It occupies the top of Boughton hill and lies along the 800 feet contour

Plate 200



Sketch map of the Boughton Hill site (after Squier)

3 Burial place 1 mile from Boughton hill on the John Bunce farm. This is directly south and on the east side of the Bloomfield road near the county line. This site was excavated by Frederick Houghton who found more than fifty pits containing human remains and many objects of European manufacture intermixed with articles of native make.

4 Village site on the farms of Jesse and George Marsh, and a burial site on Ira DeLong and David Thompson's farms. This site is near the northeast corner of East Bloomfield and on lot 13. It is about one-fourth of a mile east of Mud creek and on the eastern slope of a brook running into it. Without doubt it is the site of the Jesuit mission of St Michel, which was occupied mostly by the captive Neuter and Huron converts after the destruction of their nations. In historical accounts the site is known as Gandougarae.

5 Burial place near this village on the farm of Ira DeLong, excavated by Frederick Houghton.

6 Burial place also connected with the Gandougarae site on the farm of George Marsh, which has been excavated by Heman Coates, Fred Hamlin, William L. Bryant and Frederick Houghton. Mr Houghton has described the site on page 42 of his monograph on the "Seneca nation, from 1655 to 1687."

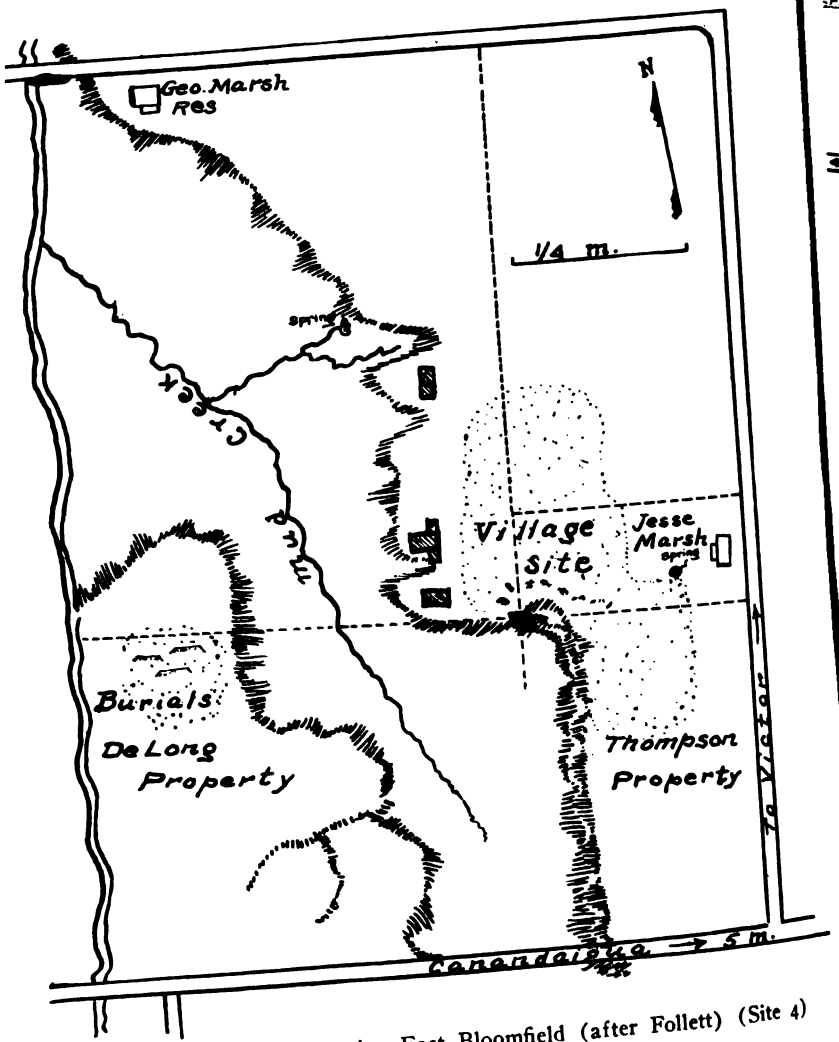
7 Village and burial site on lot 35, East Bloomfield, on the Henry Fox farm. It is on the bank of Mud creek and most of the graves are found in the heavy red clay.

8 Village site on the Appleton farm on the eastern bank of Fish creek, at the forks of the road 1¼ miles northeast of Holcomb station. The village tract covers a considerable area of land and European objects have been found.

9 Village and burial site on the Beale farm, lot 7, East Bloomfield. This is on the south side of Cherry street one-half of a mile west of the road from Victor to Holcomb and just south of the Victor township line. It is 1½ miles south of Boughton hill and occupies an irregular knoll surrounded on three sides by small streams. Mr Houghton estimates the area as 15 acres. The usual material found on sites of the early historic period are present. Burials were located by Houghton on a knoll on the western edge of the village. They were deep in the clay and sand and sometimes as many as six bodies were found in the burial pits. Houghton records thirty-four graves and describes the site on page 239 of the "Seneca Bulletin."

10 Extensive village site on the Augusta [illegible]rm, lot 75, West Bloomfield, near the railroad statio[illegible]upies the

Plate 201



Sketch map of the Marsh site, East Bloomfield (after Follett) (Site 4)

rolling land along the eastern site of Honeoye creek. Between the site which lies on the hill some 50 feet above the creek and the stream itself are wide flats some 200 to 300 feet from the base of the hill. The site seems to have been occupied for an extended period and has two cemeteries. More than twenty entire pottery vessels were found in the burials, together with many articles of shell, bone, stone and wood.

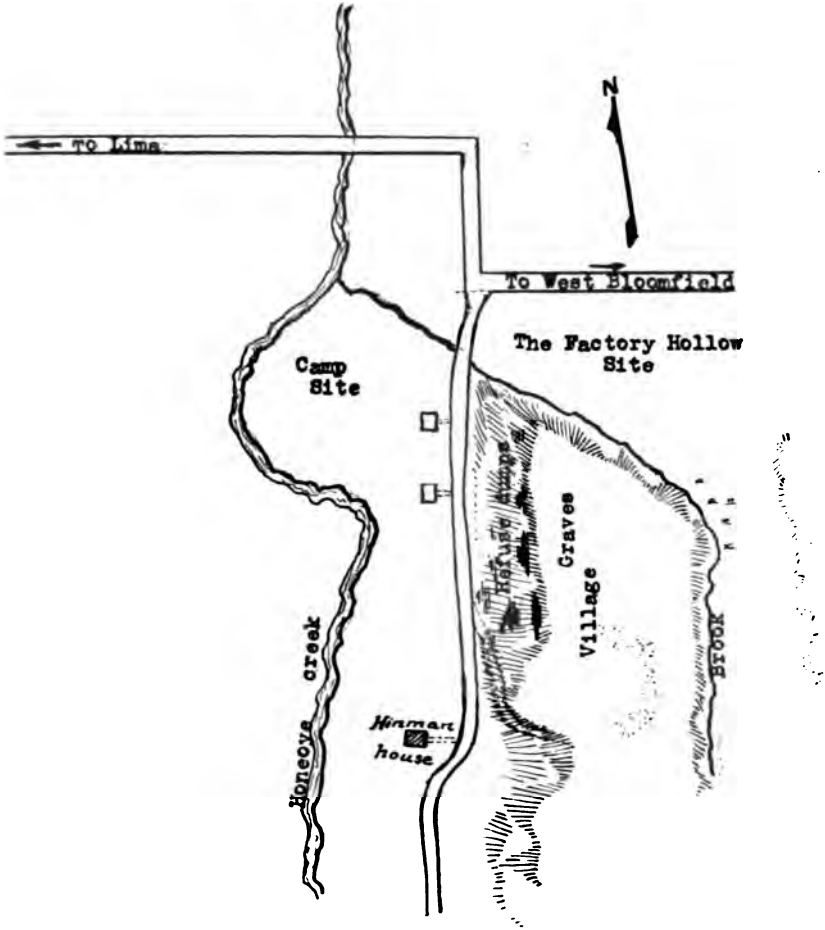


Fig. 85 Sketch map of the Factory Hollow site (after Follett)

11 Village and burial site at Factory Hollow on lot 64, West Bloomfield. The site occupies the abrupt terrace above the Honeoye outlet and above the eastern slope. The hill is very steep; a village and burial site lay upon its top 100 feet above the valley. The

ere found along the western edge of the hill a little dis-
m the main village site. Here more than one hundred
ve been opened but very few objects of European occupa-
been found except brass kettles. The village site proper
the wider portion of the hill at the southern end and all
edge of the numerous refuse deposits that contained many
lements, notched and serrated potsherds, and other dis-
nd broken material. Locally the place is known as the
k site" and the hill as "Fort hill." The period is the
of European contact.

his map of the Seneca country, Gen. J. S. Clark placed an
llage almost in the center of the town of East Bloomfield.
urgh reported a cemetery there.

lage site reported by Fred H. Hamlin on lot 16, East Bloom-
the Nead farm.

lage site on the Andrews farm at the north angle of the
hwest of Bristol.

t southeast of this in the upper portion of the valley of
k is a river site on the Sears farm.

on the Jackson farm in the northeast corner of Bristol
just south of the Richmond Mills road and southwest of
ll.

age and hilltop stronghold on the George Reed farm near
rn boundary of Richmond township and on the southeast
e Hemlock lake outlet. This site is on a sand hill that lies
two small streams running into the outlet; on the north
high slate bank running down into the brook. A pathway
upper slope of this bank leads to a fine spring which
supplied water for the village. The opposite ravine is less
separates the tract of land from the gradual sloping hillside
Throughout the site, especially the lower portion facing
, many pits have been found from which excavators have
nerous objects of flint and bone. The hillside refuse deposits
ally rich, but no object of European origin has yet been
d. The site seems in every way a precolonial Seneca
he type of the potsherds discovered are similar to those
the sites of the colonial period throughout the region. The
seum has a collection of some one thousand specimens
m the site by Alva H. Reed. For detailed description,
182.

18 Burial site on lot 25 on the John C. Briggs farm west of the site of Honeoye, in the town of Richmond. About twenty skeletons have been found in a gravel pit. A small village site is just to the northeast.

19 Burial site on lot 23 in Richmond, on the Blackner farm, reported by Albert Van Buren.

20 Honeoye, at the foot of Honeoye lake one-half of a mile east of the outlet and south of Mill creek, was burned in 1779 (Sullivan, p. 130). There were recent articles on Phelp's flat near the old Indian castle at the foot of the lake (Turner, P. & G., p. 199, 203). Clark placed the village on his map west of the outlet, but there are two older sites there, one village and one cemetery.

21 A small cemetery was 3 miles south of Canandaigua, west of the lake.

22 Randall reported a small cemetery 3 miles west of Canandaigua on a flattened ridge.

23 A mile east of Canandaigua was an oval work on a hillside overlooking the lake, with one gateway and half the wall remaining. The turnpike road from Canandaigua to Geneva passed through it. An early cemetery also (Squier, p. 55, pl. 6, no. 2). This appears in figure 66. Schoolcraft placed it on Fort Hill a mile north of Canandaigua and 1000 feet around (Schoolcraft, Report, p. 109).

24 Mr Hildburgh located a village and cemetery on Arsenal hill one-half of a mile west of Canandaigua, lot 32.

25 Village or camp at the north end of the lake near the outlet and camps along that stream.

26 There was an early site on the east side of the lake a little south of this.

27 On the west shore, just south of Canandaigua, was another early site with caches. A small burial site (21) is nearby (Clark).

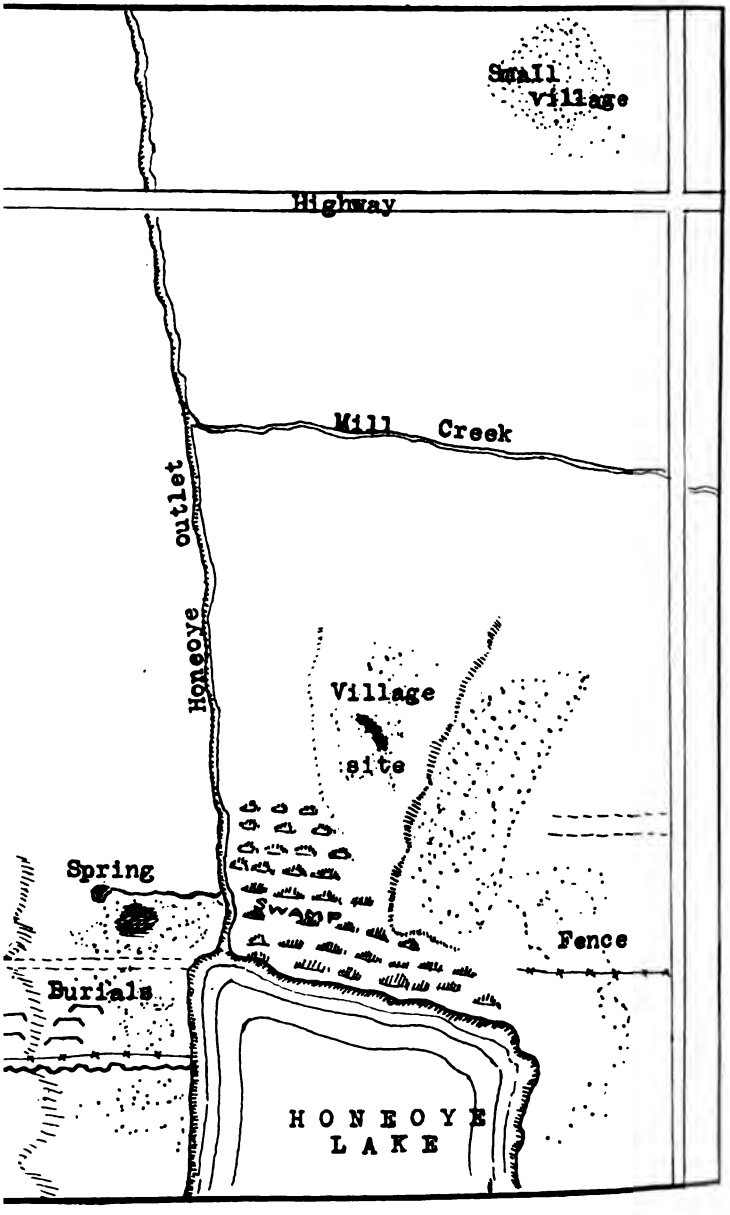
28 Graves have been found near the court house and a cemetery just west of the village.

29 Ossuary containing eighteen skeletons was found in the park at the outlet. Mrs F. F. Thompson has erected a marker to these "unknown braves."

30 Relics have been reported from Squaw island, at the foot of Canandaigua lake.

31 A grave of burned clay was opened on the east side of Canandaigua lake in July 1893. It was 4 miles south of Canandaigua and one-half of a mile east of Gage's landing. "Many early relics were found in the vicinity."

Plate 202



Sketch map of Honeoye Lake site

32 Village site on Darwin McClure's farm, lot 20, Hopewell, 3 miles southeast of Canandaigua, one-half of a mile north of the turnpike. A recent cemetery is not far away, and modern relics have been found. The site is probably that of one of the Onaghee villages.

33 Burial site on the Albert Rose farm 1 mile north of Manchester. Several graves have been opened and relics believed by Mr Follett to be of "mound-builder origin" have been found. Mr Follett describes a native copper axe from this site and says it is of an unusual type.

34 A small village was west of Manchester Center, on the south bank of Canandaigua outlet, nearly 2½ miles northwest of the village west of Clifton. Earthenware and articles of stone occur. It was probably a fishing camp.

35 A large fortified town was in the town of Phelps, on the south side of the bluff facing Canandaigua outlet. A wall has been described there. No recent articles have been found; all are of stone or clay. The site is northwest of the village of Phelps.

36 Five miles northwest of Geneva, in Phelps, was a stockade on Fort hill. This was not far from a hill on which was an earthwork. It was a long parallelogram through which the road ran, on one side of which the post holes remained. There were caches and early relics (Squier, p. 87, 88, pl. 13, no. 2).

37 Large village site just northeast of Naples, and lying between Naples and Old creek. The occupation is Algonkian. No bone articles are found. D. D. Luther has collected a large number of implements from this and adjacent sites.

38 Burial site in Naples village. Iroquoian. Pipes have been found.

39 Small village site with burials on the west side of Honeoye lake on the California ranch. Four skeletons were exhumed here during highway excavations.

40 Earthwork 3½ miles northwest of Geneva, east of the Castle road. It was 800 feet long and an early site on high ground (Squier, p. 55, pl. 7, no. 1). There are graves in the southern part.

41 Among the pine barrens on Mr Swift's farm 3 miles north of Geneva is a small site, with early relics, reported by Dr W. G. Hinsdale.

42 In Geneva, on the old DeZeng place, west of Main street, were many early relics and also camps near the south end of Main street on the south side of Glass Factory bay.

43 Kashong, on Kashong creek, 7 miles south of Geneva, was burned in 1779, but the recent site is hardly well defined. A recent cemetery was opened near the lake in 1889.

44 Village and burial site on Wilson creek, lot 32, Seneca.

45 A small cemetery was opened near Melvin hill in 1896. The heads of skeletons were to the west.

46 There is a scattered site with early relics on the farm of John Laws on the county line north of the Waterloo road.

47 George S. Conover reported a group of recent sites on Burrell creek, which are here placed under one number. The creek is very crooked and the lots are not in regular order.

48 There was an orchard and a small cemetery on lot 36, Seneca, east of the creek on the Rupert farm. Fireplaces have been found.

49 A mile east of this and south of the creek was a recent village and cemetery on the old Wheadon farm, on lot 12.

50 A recent cemetery without relics and with longitudinal burial was on the Rippey farm, lot 9, south of the creek.

51 A trail from the southeast came to the center of the old Brother farm on which there was a village. It followed the highway northwesterly.

52 Site west of Flint on Flint creek. Stone age material. Reported by H. C. Follett.

53 Canaenda was removed to lot 32 on Burrell creek where there was a large cemetery mostly on N. A. Read's farm about 25 rods southwest of the creek. On that farm and east of the creek was one of the principal sites of the town.

54 On lot 31, west of the creek, was another recent cemetery.

55 Lodge sites and a cemetery were on the Hazlet farm, lot 37, west of Burrell creek.

56 Burial mound, recent, at Clifton Springs; explored by J. W. Sanborn.

57 Early village site just south of Clifton Springs, nearly a mile south of the Canandaigua outlet. It occupied a little over 2 acres. Explorations by J. W. Sanborn in 1889 revealed fireplaces very numerous and close together. It seems to have been long inhabited and was of early date. There are fragments of decorated pottery, fine celts and arrowheads. Articles of bone have been found, but none of shell. Reported by Irving W. Coates.

58 Early village, reported by Mr Coates, is 1½ miles west of the one at Clifton Springs. The relics are similar to those found in the site above mentioned excepting that no bone articles have been

found. It was a small village, but the few fireplaces are large and deep. The site is a mile south of the Canandaigua outlet, one-fourth of a mile west of Fall brook.

59 Skeletons have been exhumed and relics found at Littleville, a hamlet on the creek south of Shortsville. Some of the latter indicate early visitors, and several trails converged at the ford there.

60 Three-fourths of a mile south of Chapinville, near the creek, was a workshop. Flint chips, unfinished weapons and fine stone articles were once frequent there. Some other reputed Indian sites which he had not personally examined, Mr Coates did not describe.

61 Small village site reported by J. H. V. Clarke.

62 Village of Kanadesaga, situated just west of the city of Geneva. This was one of the important Seneca towns burned by General Sullivan in the punitive raid of 1779. Squier, who visited the site in 1840, said that the palisade traces were distinct, due to the fact that the Indians in ceding the lands stipulated that this, their famous town site, should not be used for cultivated ground. Their plea was, "Here sleep our fathers, and they can not rest well if they hear the plow of the white man above them." When Sullivan destroyed the village it consisted of fifty houses with adjacent fields of corn and large orchards. The raiders destroyed the corn, hay and other stored food and cut down the orchards. In robbing the houses they found many trinkets, pelts and other things of value. Near the village was a mound in which the body of a giant Seneca was reputed by tradition to be buried. In the center of the village was a stockade built by Sir William Johnson. Morgan and Squier have written in an interesting manner concerning Ga-nunda-sa-ga and the records of Sullivan's expedition give a contemporary description of it. The Rev. Samuel Kirkland spent some time here and had an interesting adventure. It was here that the great Gaiyengwahtoh or Disappearing Smoke lived.

63 Village site and stockade site 2 miles southwest of Geneva.

64 Small village site a mile east of Littleville, and southwest of Manchester, on the southern portion of lot 25. Here have been found many beautiful specimens of chalcedony points. Mr Follett says that here in a lump of hard clay found 3 feet below the surface were found five ancient looking and crude chert points.

65 Camp site, evidently an extensive and permanent one, is situated just one-fourth of a mile north of 64. There is a fine spring here known as "The Indian spring." Relics of many sorts are found in the adjacent fields, but mostly on the Follett farm. Th

ces where the arrow and spear points are crude and primitive; places where there is plain evidence of European contact, as ollett points out in the instance of the finding of a copper with a bullet hole through the bowl.

Village and camp sites at the head of Honeoye lake on the of Delevan Alger. Bolo stones or grooved weights have been here, according to Mr Follett, who also reports several ated disks of sandstone. Mr Dewey has two specimens of rom this site.

Village and camp sites on the east side of Honeoye lake, where erstones and notched points have been found.

Orange County

List of Sites

illage site on the Van Etten estate near Port Jervis, and along versink river. The village and burials indicate a Minsi occupa- uring the late colonial period. Excavated by the State Museum 9.

amp sites are found all along the Delaware from Old Bolton to Tristate.

everal camp sites and small burial places along the Never- alley from Carpenters point to Martins lake.

ndian spring is east of the village of Michigan. "Bushels of neads have been found there" (Eager, p. 352).

small village site at Plum point just south and below West rg.

illage site 1 mile south of Walden and along the Wallkill river. ecent settlement on the flat above Wallkill bridge in omery (Eager, p. 277).

ndians owned an eelweir on the creek at Henry Crist's (Eager.).

n Indian village and orchard on the east bank of the Wallkill town line between Wallkill and Montgomery (Eager, p. 277).

Village site on great lot 39 in Wallkill near Middletown. y and flints are commonly found.

Dans Kammer is a cove in the north part of the town of rgh where the Esopus Indians went for religious dances, the name. De Vries mentioned these in 1640. Mr. Frey had a ported to him on the point.

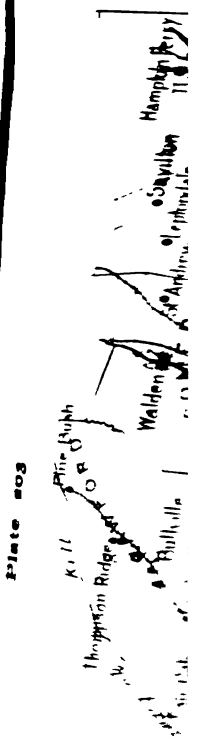


Plate 203

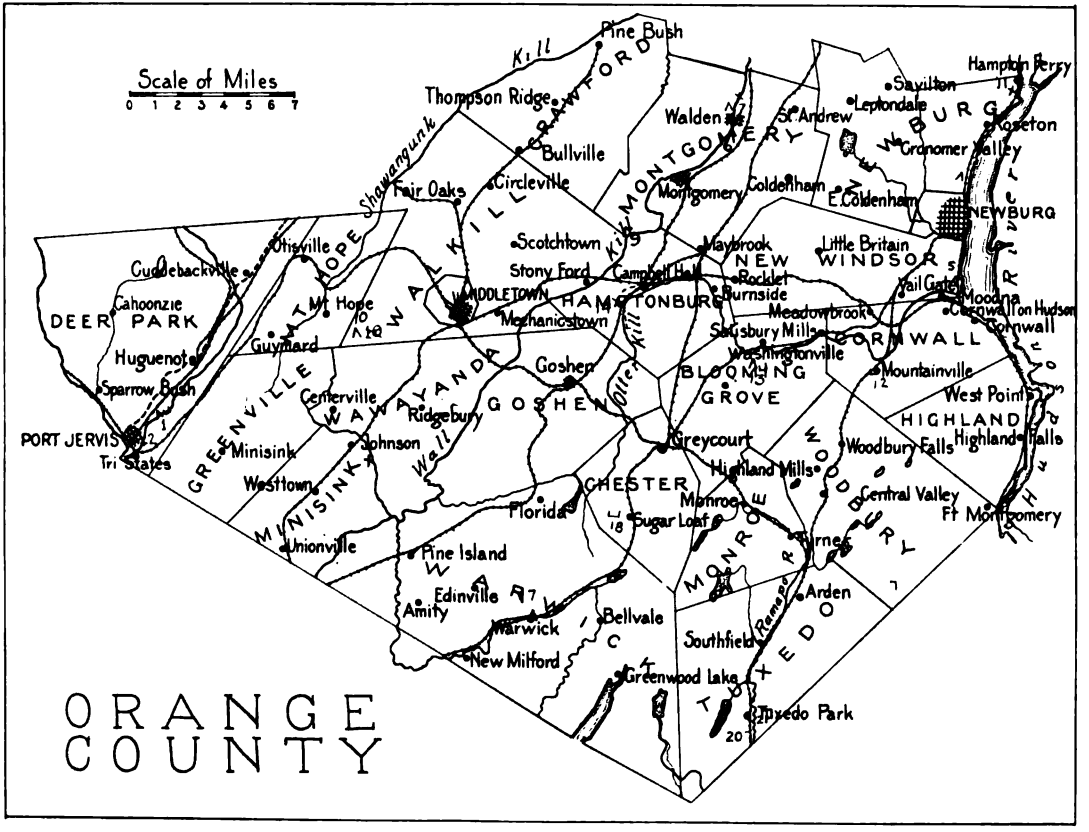
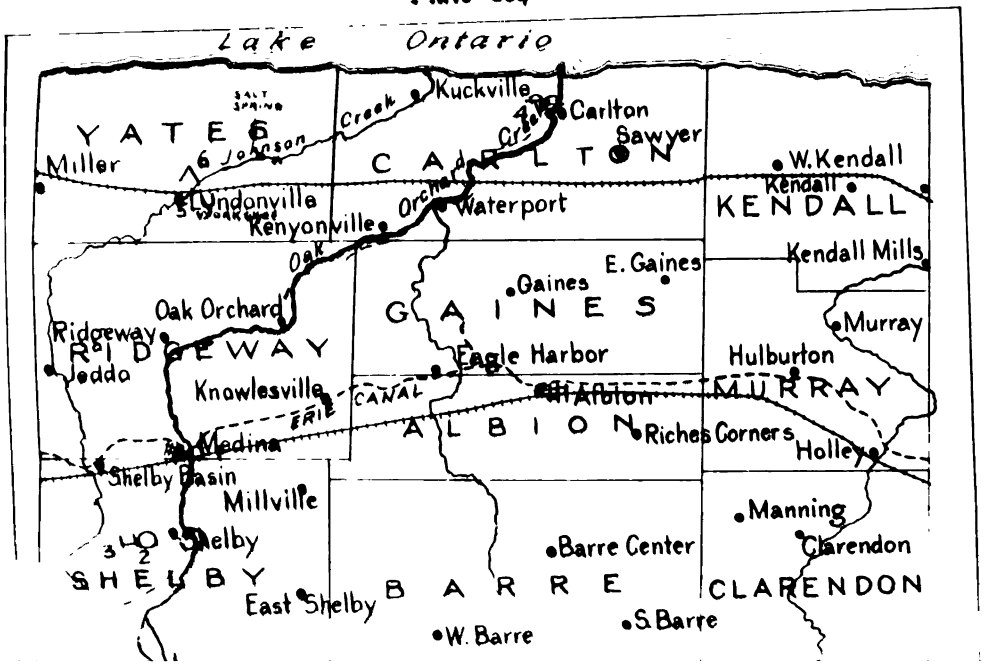

Scale of Miles
0 1 2 3 4 5 6 7
ORANGE COUNTY
Pine Bush
Thompson Ridge
Bullville
Circleville
Fair Oaks
Scotchtown
Stony Ford
MIDDLETOWN
Mechanicstown
Otisville
Cuddebackville
Cahoonzie
DEER PARK
Mt Hope
Guymard
Huguenot
Sparrow Bush
PORT JERVIS
Tri States
Minisink
Westtown
Unionville
Centerville
Ridgebury
Johnson
Goshen
Pine Island
Edinville
Amity
Warwick
New Milford
Florida
CHESTER
Sugar Loaf
Greycourt
Highland Mills
Monroe
Harriman
Arden
Bellvale
Southfield
Greenwood Lake
Tuxedo Park
Walden
Montgomery
Goldenham
E. Goldenham
St. Andrew
Maybrook
Campbell Hall
Rocklet
Burnside
Meadowbrook
Salisbury Mills
Washingtonville
BLOOMING GROVE
HAMPTONBURG
NEW WINDSOR
Little Britain
Sayilton
Leptondale
Cronomer Valley
Hampton Ferry
Moodna
Cornwall on Hudson
Cornwall
Mountainville
West Point
HIGHLAND
Highland Falls
Woodbury Falls
Central Valley
Ft Montgomery
NEWBURG
Roseton
Kill
Shawangunk
Wallkill
Moodna Creek
Ramapo River
Hudson River
Otter Kill
Wallkill
Wawayanda
Greenville
Minisink
Monroe
Woodbury
Tuxedo
Montgomery
Cornwall
Newburg

Plate 204

Plate 204


Lake Ontario
YATES
CARLTON
KENDALL
GAINES
RIDGEWAY
ALBION
MURRAY
SHELBY
BARRE
CLARENDON
Kuckville
Carlton
Sawyer
Miller
Johnson
Lyndonville
Kenyonville
Waterport
W. Kendall
Kendall
Kendall Mills
E. Gaines
Gaines
Oak Orchard
Ridgeway
Murray
Eagle Harbor
Hulburton
Knowlesville
Albion
Medina
Riches Corners
Holley
Shelby Basin
Millville
Shelby
Manning
Barre Center
Clarendon
East Shelby
W. Barre
S. Barre
Oak Orchard Creek
Erie Canal

12 Burial ground at Mountainville at the base of the Schunnemunk about 300 feet south of Dark Hollow brook. This site is on the Houghton farm.

13 "Maringoman's castle" was on the north end of Schunnemunk mountain and on the south side of Murderer's creek, Blooming Grove. The cemetery was a little south of this (Beach, p. 7).

14 "Maringoman's wigwam" was on the north bank of the creek in Hamptonsburg at the junction of Otterkill and Greycourt creek. Early relics are found in many places near (Beach, p. 7).

15 There was a recent village and cemetery in Minisink on Samuel Dolsan's farm (Eager, p. 213).

16. On Jogee hill was another village with small images and abundant arrowheads (Eager, p. 418).

17. On the Welling farm in Warwick was a village and orchard called Mistucky (Eager, p. 423).

18 A cemetery on Sugar Loaf mountain had about thirty graves before the Revolution, with palisades around the mounds (Eager, p. 517).

19 Rock shelter at Goshen mountain 5½ miles east of Arden. This was explored by Mr Schrabisch, who found flints and pottery.

20 Rock shelter on the east bank of the Ramapo 2 miles north of Sloatsburg and 1 mile south of Tuxedo. This was explored and described by Max Schrabisch (v. 3, Am. Mus. Nat. Hist., Anthrop. Papers).

21 Rock shelter at Horse-stable Rock 4 miles north-northeast of Sloatsburg, N. J., and 2½ miles east of Tuxedo. This shelter is one of the largest in the State and from it Mr Schrabisch has taken some 138 fine prehistoric relics.

Orleans County

List of Sites

1 Earthwork south of Medina in the town of Ridgeway, reported by E. M. Thompkins. Macauley (2:113) mentions mounds in the township.

2 Circular earthwork 1½ miles west of Shelby Center. Squier quotes Turner's account, which has many features of interest. F. H. Cushing describes it in the Smithsonian report for 1874 and mentions its double walls, gateways and boulders. Some have ascribed to it a great antiquity but Doctor Beauchamp says this is

simply a prehistoric Iroquois fort with the usual relics, but it includes some Ohio shells. It may be an easterly town of the Neuter nation.

3 A large cemetery was once one-half of a mile west of this. Mr Squier says "it is not known that many ancient remains occur in this county," and these are all reported. Schoolcraft, however, speaks of an old fort in a swamp at Barnegat, now Shelby Center, which is noted above.

4 Mounds on the north bank of Oak Orchard creek reported by Dr F. D. Snyder as 2 miles from the lake.

5 "The last arrow maker lived on the place now owned by Mrs C. A. Johnson in the village of Lyndonville about 60 rods east of the highway, and he used an old hollow stump for his storehouse. He left the country suddenly about 1830 and the arrowheads were afterward found by my uncle, but they have been scattered. I have a small collection of relics but not of a great consequence." (Walter A. Tuttle.)

6 Mr Tuttle also adds: "As to my personal investigation, it has principally been in the town of Yates where there are only odd places where relics are found. On the farm now owned by George Cooper in the village of Lyndonville and on the farm now owned by John Foss, about 2 miles east of Yates Center, there were salt licks, where the Indians used to hunt a great deal. On the banks of the Johnson creek opposite these, there were a great many arrowheads, some pipes, and charms."

Oswego County

List of Sites

1 Village site on lot 3, Richland, at the mouth of Salmon river and near Port Ontario. This was the Otianhatagne, or Canohage, of 1654.

2 Village site in Richland on the Salmon river on the Harry Moody property. This is on the north bank of the river near the mouth.

3 Village site on the farm of Fred Thomson 4 miles east of Pulaski on the Salmon river.

4 An earthwork on a hilltop in the north part of Albion township near Salmon River village. It is locally known as the Pineville fort. It incloses about 2 acres and is circular.

5 Earthwork on the Salmon river 1¼ miles northeast of Altmar on the John Kandt farm.

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Plate 205



6 Camp sites all along the banks of the Salmon river yielding flints and pottery.

7 Burial place on Bone hill in Granby township and at Oswego Falls west of the river.

8 Scattered camps with arrowheads and a little pottery around the shores of Lake Neatawantha.

9 Village site on the west side of Oswego river a mile southeast of Fulton dam.

10 A circular work with two gates is on lot 24 in Granby, and on a hill just east of South Granby village. The circle, now almost obliterated, has a diameter of 240 feet. Beauchamp gives an outline in figure 71 of his bulletin and adds: "The descriptions in Clark and Squier are incorrect. Scarcely anything is found except a few fragments of pottery. It was occupied a very short time."

11 An earthwork or fort once existed on level land on lot 32. It was occupied much longer and yields the usual relics. The site, which has been incorrectly described by some writers, lies near a small stream flowing into the Oswego river and is near school 16.

12 A semicircular work was once on the east side of the river at Oswego Falls. Supposing it once to have been circular, the western side was removed in cutting the canal. Mr Clark says it was about 10 rods across. This seems the fort which Squier mentions near Phillipsville. It was probably only semicircular.

13 Camps on the banks and on the island in the Oswego river at Phoenix, mostly early, though some are very recent. It was a favorite fishing place and fine relics have been found, many hundreds coming from the island.

14 Camps on the Oneida river at Caughdenoy, where the Onondagas and Oneidas had eelweirs, as well as elsewhere. Early travelers describe these.

15 Camps toward Brewerton. They were small.

16 Camps, village sites and cemeteries at Brewerton, a favorite early and recent resort. Harpoons and other bone articles are abundant, with some bone fishhooks. Clark's account of a large cemetery is exaggerated.

17 A small village on a point on the north shore of Oneida lake half way between Brewerton and Constantia. Early relics but no pottery.

18 Camps sites yielding relics on the lake shore west of Oswego, near the mouth of Eight Mile creek. [illegible] such situations.



19 Mr Clark reported remains of old fortifications on both sides of the river near Battle island, but diligent inquiry reveals none. A cache of flint articles were found east of the Battle island dam.

20 Camp on the lake shore 2 miles east of Oswego. Early relics.

Otsego County

List of Sites

1 Village site now covered by the town of Cooperstown. Mention is made of this fact by F. W. Halsey and in Cooper's Chronicles of Cooperstown.

2 Burial site on the Alfred Clark estate in Cooperstown. Spear points have been found on the surface.

3 Burial mound reported at Cooperstown on the east side of the river. It is a modern mound in which Indian remains have been deposited.

4 Camp sites with early relics at the northwest end of Otsego lake, reported by Adrian Pierson.

5 Burial knoll or mound reported by Adrian Pierson at Oneonta.

6 Village site at Oneonta reported by John R. Skinner.

7 Extensive camp 2 miles below Oneonta, north of the river. Arrowheads and pestles occur as on most local early sites.

8 Village site 3 miles above Oneonta on the west side. A camp site is opposite.

9 Village site of 3 or 4 acres in the angle made by the south side of the Charlotte river with the Susquehanna, lot 46, Davenport. Pottery is found there. Articles from this spot were in the fine collection destroyed in the burning of the Oneonta normal school.

10 A mound on an island in the Susquehanna west of the mouth of Charlotte river. The mound is said by F. W. Halsey to contain the remains of Kagatinga, a Delaware chief.

11 The village of Unadilla was burned in 1778, and it was at the junction of the Unadilla with the Susquehanna on both sides of the river (Sullivan, p. 23). It was inhabited in 1753 by Stockbridge Indians and was mentioned by the Rev. Gideon Hawley.

12 Village site in Butternuts just east of Mount Upton and on a tract of land north of the road that crosses the river.

13 Camp sites on lots 40 and 41.

14 Earthwork near Unadilla mentioned by Squier, p. 46.

15 Village site on lot 16, Pittsfield, near the Unadilla river, just north of Silver lake.

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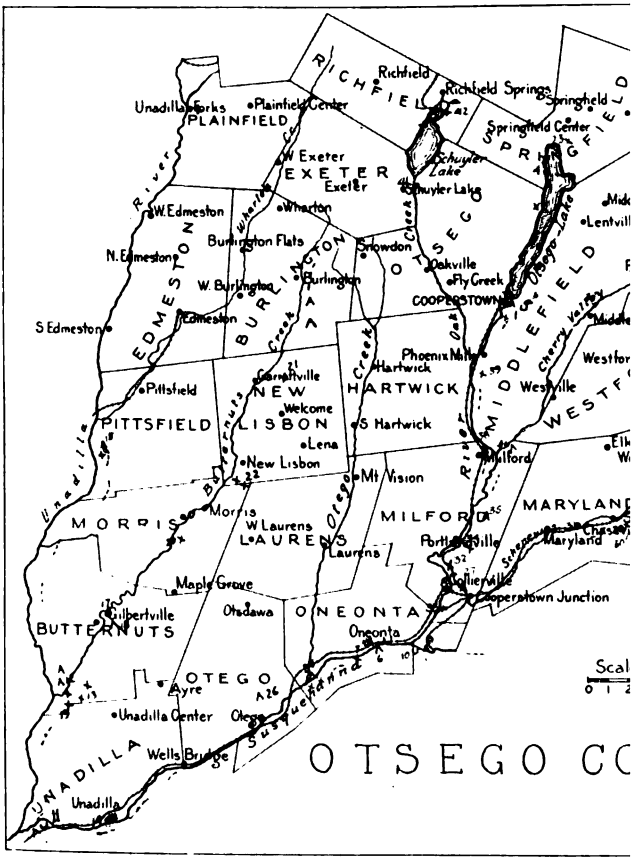
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Plate 206



16 Burial mound reported by F. W. Kalsey as on the of the river near Unadilla.

17 Earthwork on the Don Prentice farm in Butternu bertsville. There is a village site on this locality and known as "The Haunted Knoll."



Fig. 86 Pottery vessel from Colliers, Otsego cour Although from the site of "the last Mohawk villag the vessel does not appear to be characteristica Mohawk. Yager collection. x⅞.

18 Village site on the same farm reported by A. C. T

19 Camp sites near the mouth of Butternuts creek an Unadilla river.

20 Camp with early relics on the west side of the sa miles south of Morris, is on Jerome Lull's farm.

21 Camp on the Mather farm 1½ miles north of (east of Butternuts creek. Early relics.

22 Camp sites on the Ellen Chapin farm in the south of New Lisbon township and along Butternuts creek.

23 Village site on the Hoke farm near Springfield C

24 Village site, extensive in area, at the mouth of C Arrowheads and sinkers are found.

25 Village site near Otego on the east bank of Otsc Fine specimens of pottery have been found here.

26 A large camp 2 miles north of Otego, east of and near Otsdawa creek.

27 Village site between Schenevus creek and the Susquehanna river is reported by T. L. Bishop who considers it that of Towanoendalough, the first Mohawk town on the Susquehanna as described by the Rev. Gideon Hawley in 1753. It is just east of Colliersville. The prehistoric specimens are more frequent than recent articles. It is on the north side of Schenevus creek and covers from 10 to 15 acres. On the west side of the river arrowheads, hammerstones and flint chips occur.

28 Camp, where many arrowheads have been found, at Schenevus lake, a mile southwest of Schenevus.

29 Burial site on the Claud Belson farm at Schenevus lake. Pottery is found.



Plate 207

Fig. 87 The Otsego Outlet pipe, found by David R. Dorn, of Cooperstown, at the outlet of Otsego lake. The pipe is Iroquoian of the middle historic period, 1650–1700.

30 Village site on the Belson estate at Schenevus.

31 Camp site a mile north of Schenevus creek and just west of Maryland.

32 A camp site is 2 miles north of Colliersville and east of the river. Triangular arrowheads and broken and perfect earthenware are found.

33 A camp on the west side of the river 2 miles below Colliersville.

34 Village site one-fourth of a mile south of Portlandville, east of the river. It has rude and early implements.

35 Small village site 3 miles north of Portlandville, east of the river, has also early relics.

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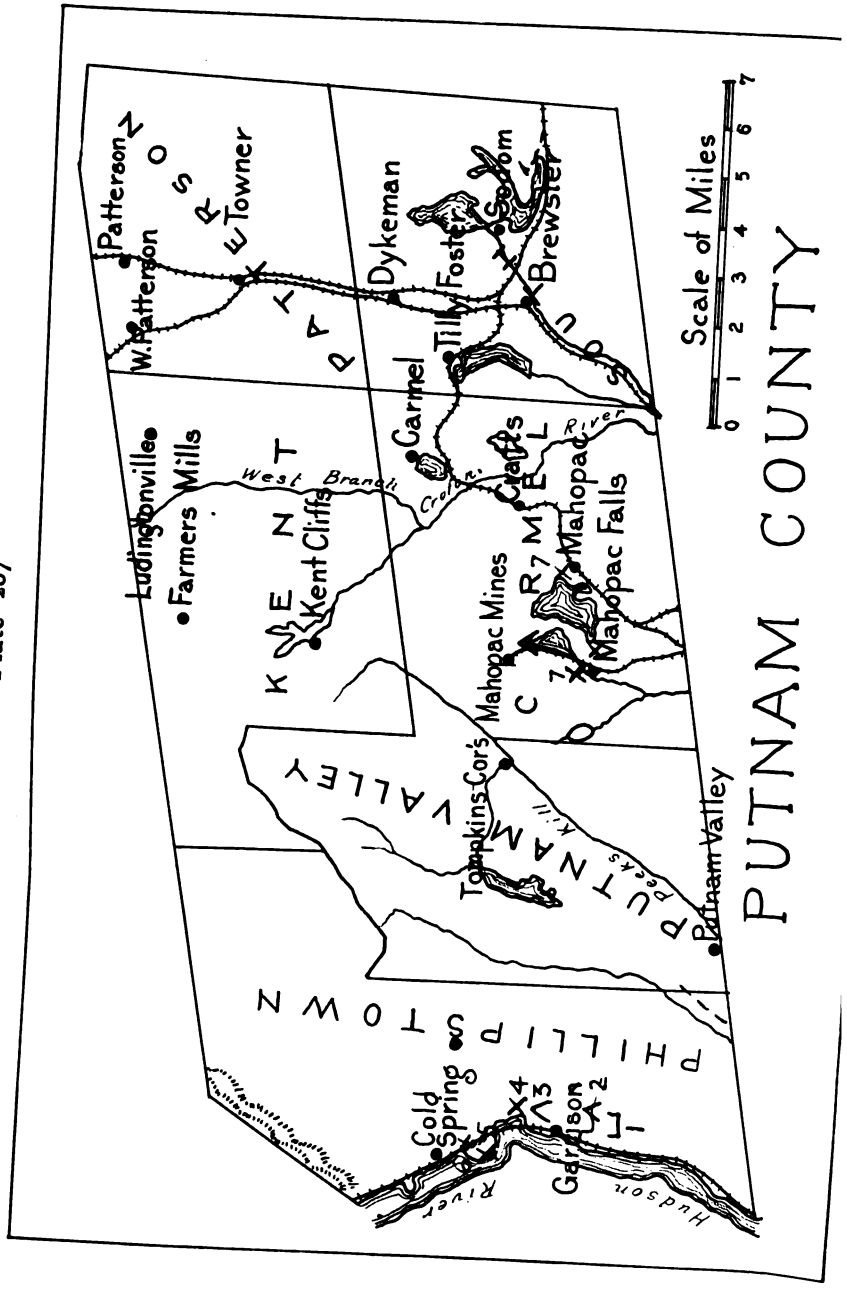
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l perfect earthenware

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Plate 207



36 Village site near the juncture of Cherry Valley creek, on lot 26, Middlefield, a mile east of Milford.

37 Camp site near Niskayuna rock, 2 miles north of Middlefield on the west side of Cherry Valley creek.

38 Village site with early relics covering 4 or 5 acres a mile north of Milford, west of the river and along Kinman Hollow creek.

39 Camps one-half of a mile below Phoenix Mills, east of the river.

40 An early camp is on the Coats farm one-half of a mile south of Roseboom, on the west side of the same creek.

41 Village site on the shores of Schuyler lake near the present village.

42 Mound on the John Gano farm near Richfield Springs.

43 Doctor Beauchamp, in describing Otsego county, says: "The Iroquois had little to do with this county till recent times and the few sites are of minor importance. Several sites about Richfield Springs are described in 'Richfield Springs and Vicinity,' by W. T. Bailey. An oblong mound, often visited by the Oneidas, was reputed to be the grave of a chief and was in Mr Hopkinson's orchard in that town (Bailey, p. 27). A recent cemetery was on a ridge opposite the lake house (Bailey, p. 37). Three skeletons were found near that house and a cache of flint articles near the lake. Several places on Oak ridge, west of the lake, half a mile from the head, had early articles (Bailey, p. 39). In grading near the bridge east of this ridge skeletons were found with flat stones over the faces (Bailey, p. 40)."

Putnam County

List of Sites

1 Burial site on the Fisk estate south of Garrison station.

2 Village site at Garrison on the Phillips estate. The spot is locally known as "the Indian field." A burial place is said to have been discovered there. This site is reported by James Nelson of Cold Spring.

3 Village site at Garrison.

4 A camp near the mouth of Indian brook. A copper knife was found there.

5 A camp site on Constitution island.

6 A camp on the outskirts of Cold Spring near Plumbush flats. A number of articles have been found near this place.

7 Camp sites exist all around Lake Mahopac. Several were examined by the writer during 1903-4.

Queens County

List of Sites

1 Burial sites yielding 11 skeletons, in the Linnaean garden in Flushing in 1841. All the heads were to the east (Furman).

2 Burial site was opened on Thomas P. Duryea's farm, a mile from Flushing in 1880. Stone relics were found.

3 The Matinicocks had large settlements at Flushing, Glen Cove and Cow Harbor.

4 Village and burial site at College Point on the E. Platt Stratton estate. Skeletons were found in 1861, when excavating for the foundation of Knickerbocker Hall.

5 Village site and shell heap with relics near Little Neck.

6 Shell heap at Douglass point.

7 Burial site near Bayshore Beach (or Van Nostrand) and Little Neck bay.

8 Village of the Jameco Indians on a creek a mile south of the present village of Jamaica (Thompson, p. 382).

9 Burial site on the Riker and Titus estates on the Bowery road to Steinway and North Beach.

10 Shell heap on the Jackson property on Poor Bowery at North Beach.

11 Village site and shell heap near Hook Creek station on the road to Far Rockaway.

12 Shell heap at Sanford's point, Astoria, opposite the north end of Blackwells island. There were early and modern relics.

13 Village site on the Maspeth hills at the head of Newton creek.

14 Burial site in Long Island City along Crescent street.

Rensselaer County

List of Sites

1 An early village site at the mouth of the Hoosic yields "Eskimoan" implements. The site is at the bend on the south side of the Hoosic and on a gentle slope that lies between the road and the hill to the south.

2 Village site and burial place on the Knickerbocker estate between two small streams on the south side of the Hoosic and west of the road from Reynolds to the river. A. D. Baker says: "In that part of the town known as Old Schaghticoke is a large oak or council tree. Indian villages were located in that vicinity before the Revolution. This tree was annually visited by members of the

Plate 208

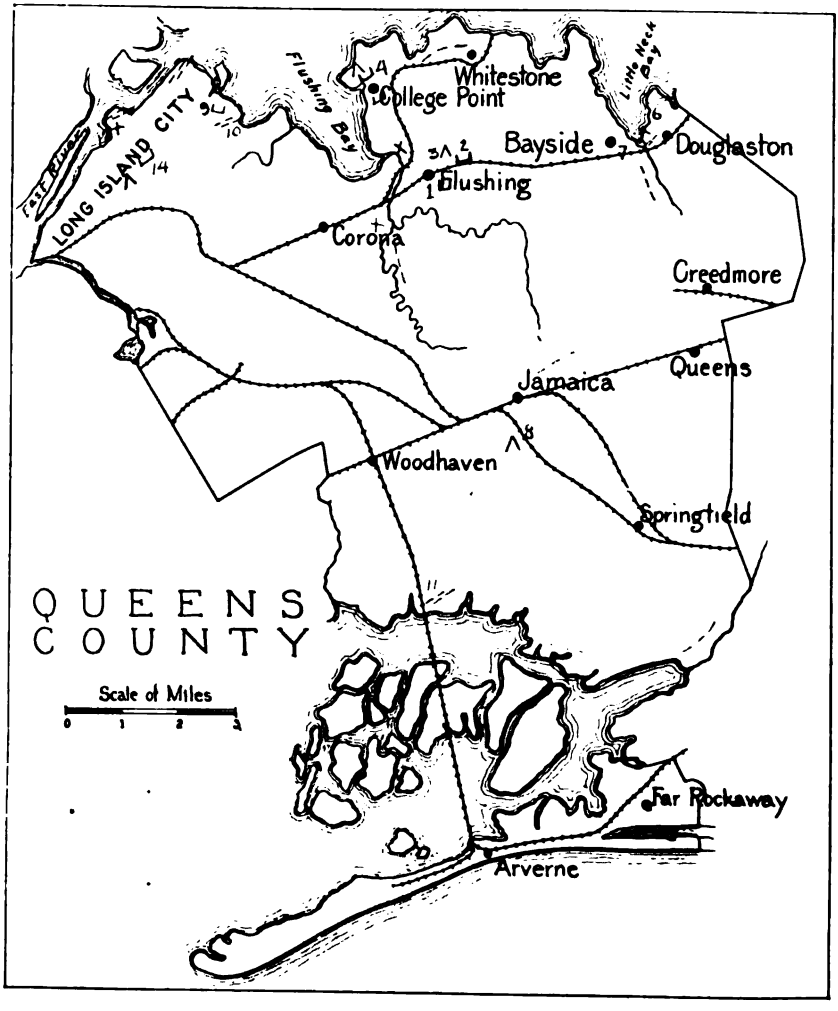
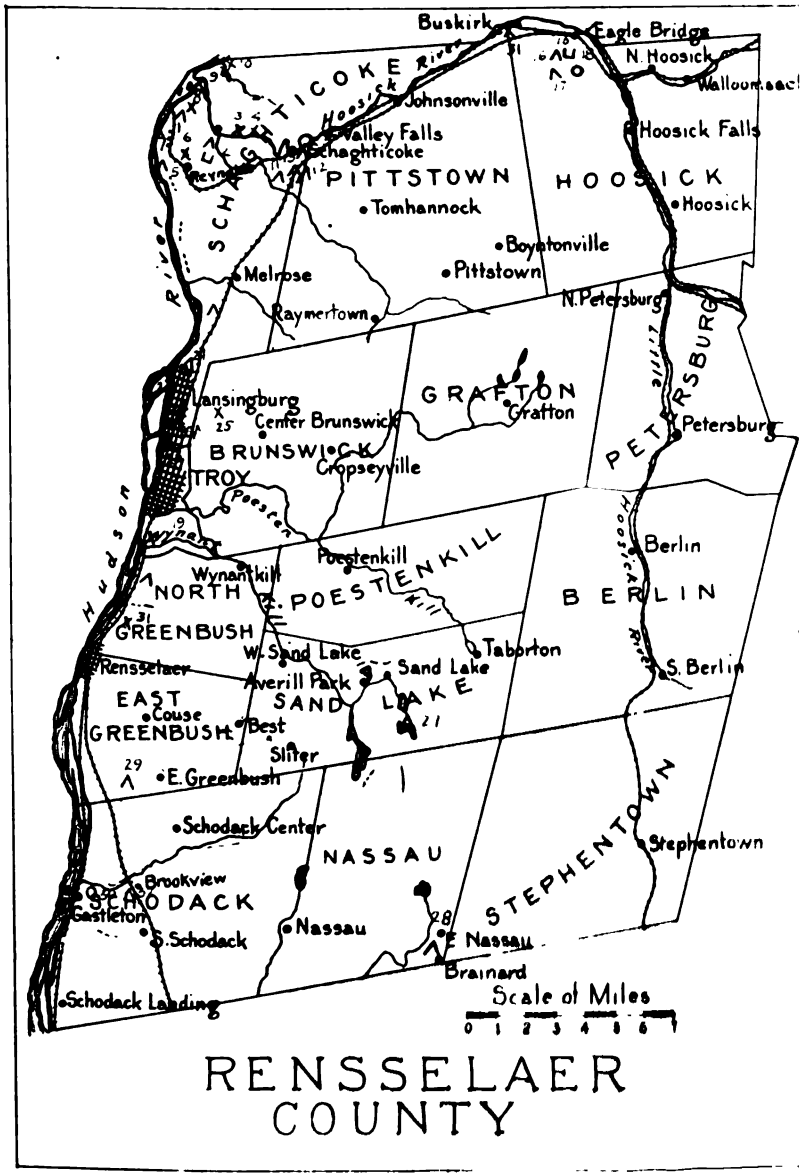

Whitestone
College Point
Flushing Bay
Little Neck Bay
LONG ISLAND CITY
East River
Bayside
Douglaston
Flushing
Corona
Creedmore
Queens
Jamaica
Woodhaven
Springfield
QUEENS
COUNTY
Scale of Miles
0 1 2 3
Far Rockaway
Arverne

Plate 209


Buskirk
Eagle Bridge
N. Hoosick
Walloomsac
Johnsonville
Valley Falls
Schaghticoke
Hoosick Falls
PITTSTOWN
HOOSICK
Tomhannock
Hoosick
Boyntonville
Melrose
Pittstown
Raymertown
N. Petersburg
GRAFTON
Grafton
Lansingburg
Center Brunswick
BRUNSWICK
Cropseyville
TROY
PETERSBURG
Petersburg
Poestenkill
Berlin
Wynantskill
NORTH GREENBUSH
POESTENKILL
BERLIN
W. Sand Lake
Taborton
Rensselaer
Averill Park
Sand Lake
S. Berlin
EAST GREENBUSH
Couse
Best
SAND LAKE
Sliter
E. Greenbush
Schodack Center
NASSAU
STEPHENTOWN
Stephentown
Brookview
SCHODACK
Castleton
S. Schodack
Nassau
E. Nassau
Brainard
Schodack Landing
Scale of Miles
0 1 2 3 4 5 6 7
RENSSELAER COUNTY

Schaghticokes as late as the year 1850 and always accompanied by a very old squaw."

3-4 Two adjoining camp sites a mile northeast of the Knickerbocker site and north across the Hoosic. These sites lie along the edge of a steep hill, one above the other, and may be reached from the Stillwater bridge road by going due south from the point where the road turns east up a hill.

5 Village site along the Hudson due west of Reynolds. Albert C. Hurd reports this site as on the Kings farm about a mile south of the Mechanicville bridge.

6 Large camp site a mile northeast of Reynolds on the road to the river. The site is near the edge of the hill that fronts the river flats. Reported by Mr Hurd.

7 Village site just north of the bridge and opposite the mouth of Anthony kill; reported by Mr Hurd.

8 Village site along the Hudson just below the mouth of the Hoosic, a mile north of the Fitchburg railroad bridge.

9 Camp site just east of the Stillwater bridge along the river.

10 Camp site along the Hudson a mile from the former just south of the county line and north of a brook flowing from a deep gully.

11 Village site on the Walter White farm near Schaghticoke.

12 Village site on the Banker farm near Schaghticoke village. Pottery and numerous flints have been found.

13 Village site east of the bridge road at Schaghticoke.

14 Village site near Schaghticoke on the F. W. Borden farm.

15 Burial knoll on the Harrington farm near Eagle Bridge.

16 Village site on the Harrington farm near Eagle Bridge. Pottery has been found.

17 Fortified site in the town of Hoosick 2½ miles from Eagle Bridge; reported by J. A. Vandenberg.

18 Village site on the Moses farm near Eagle Bridge.

19 Village site covering extensive area on the Vandenberg farm in South Troy.

20 Unawats castle was in the southern portion of Lansingburg and opposite Van Schaick island.

21 Village site north of Waterford bridge and along the Hudson. The site is extensive and has yielded an abundance of relics, especially stone articles.

22 The Moenemies' castle was on land bought by Van Rensselaer in 1630 of the Mahikans east of the river. He also bought land of them on the west side (Doc. Hist. N. Y., 14: 1).

/illage site on the Gurley estate at Albia. The occupation is oric and yields an abundance of stone articles. The Rev. Auringer believes he has found "a stone altar and cysts." urd says the relics are crude and much weathered.

A cemetery of the Mohawks was opened on First street, Lan- rg. This location is where the Christian Science Church now

Camp site a mile east of this on the hill and west of the ridge. Reported by A. C. Hurd.

Camp sites on Vandenbergs hill. A varied and successive ation over 5 acres, with finest articles near the surface.

Village site on Crooked lake east of the source of the Wy- ill in the town of Sand Lake. This has scrapers and grooved

Some Stockbridge Indians lived at Brainard's in Nassau in where Mr Hoag's orchard stands. The place was called ke-ho-mawck (French, p. 557).

Village site near East Greenbush where many arrowheads have found.

Village site and stronghold on a hill just east of Castleton. and is now owned by Jacob Seaman. Much of the site has been oyed by excavation for sand. The site is regarded as Mahikan, Hudson indeed found a Mahikan village there. The pottery, ver, is Mohawk in pattern.

Large camp site north of Rensselaer on the flat land below the es property. It lies along the road and just south of a small c.

Large camp site or village near Buskirk Bridge.

Village site at Brookview on Modenerskill on the Howard iff farm.

Rockland County

List of Sites

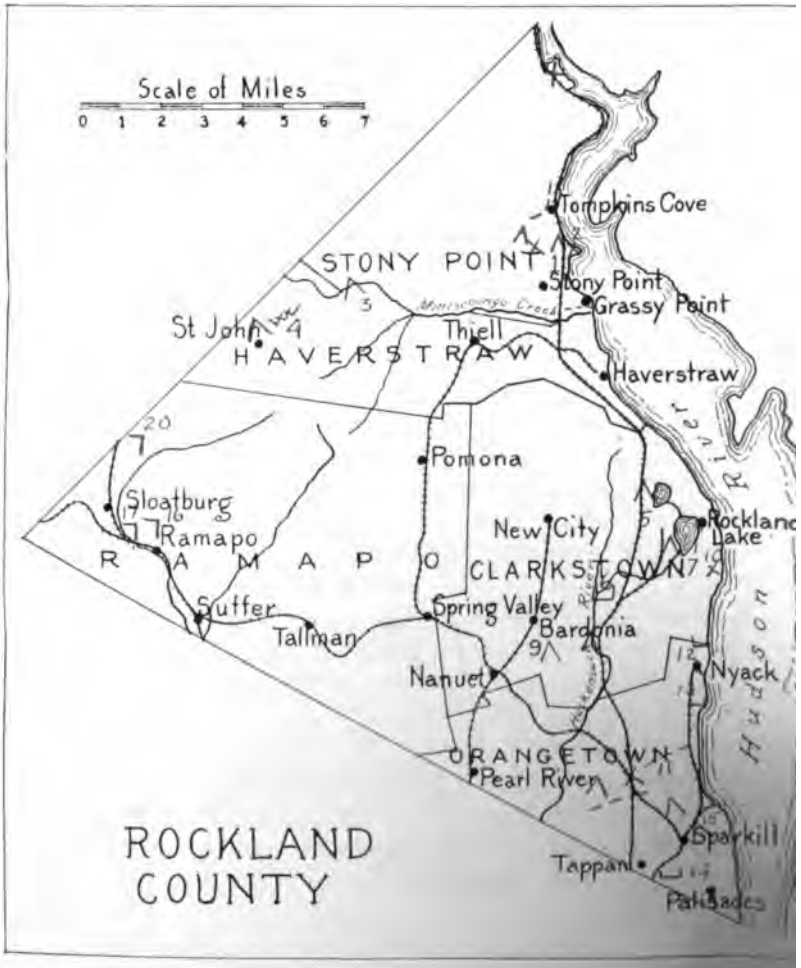
Small village site at Stony Point with camp extended out onto y Point promontory. There were shell heaps at this place.

Camp on the Brewster J. Allison farm, east of Stony Point. gh objects and hammerstones have been found there.

Small village site on the Sylvester Bulson farm, Stony Point. site lies about 3 miles from the river at a locality known as ontown.

Small village site at Johnsontown about 5 miles from the river. re were clearings here and evidences of cultivated fields.

Plate 210


Scale of Miles
0 1 2 3 4 5 6 7
Tompkins Cove
STONY POINT
Stony Point
Grassy Point
St John
Thiell
HAVERSTRAW
Haverstraw
Pomona
Sloatburg
Ramapo
RAMAPO
New City
CLARKSTOWN
Rockland Lake
Sutter
Tallman
Spring Valley
Bardonia
Nanuet
Nyack
ORANGETOWN
Pearl River
Sparkill
Tappan
Palisades
ROCKLAND COUNTY
Hudson River

5 Village site at Congers. A collection of arrow points has been made from this site by William H. Haskins.

6 Burial place near the Hackensack river at Valley Cottage.

7 Village site near Rockland lake.

8 "Village site in Upper Nyack north of the West Shore Railroad station."

9 Small village site at West Nyack near Clarksville, reported by Robert H. Fenton of Nyack.

10 Village site south of Hook mountain on the lands of Snedcker, Tucker, Hart, Green and others. In this area numerous implements of stone have been found.

11 Scattered sites between Orangeburg and Grand View.

12 Burial site at the outlet of a brook in Nyack on the Depew farm.

13 Burial site at the north end of South Nyack point.

14 Village site near Piermont at the headquarters of Sparkill. Pottery has been found here.

15 Village site on the James V. Clarke property at Sparkill.

16 Rock shelter on Thorn brook northeast of the village of Ramapo, described by Max Schrabisch. Mr Schrabisch in visiting this site in 1907 found quantities of pottery under the leaf mould that had filled the shelter. More than six hundred fragments have been found in the several fireplaces.

17 Rock shelter on Thorn mountain due north from the village of Ramapo. Mr Schrabisch describes this as half way up the southern slope of the mountain and on the fifth terrace. Hundreds of flint nodules were found.

18 Rock shelter on the west slope of Thorn mountain opposite Sterlington. The shelter is described as not more than 40 feet from the bank of the Ramapo river and is at the very edge of the terminal ridge of the mountain. Excavations revealed pottery and other evidences of occupation, such as arrowheads, spear points, scrapers and chips.

19 Rock shelter found at Pound hill not far from its summit and on its southeastern slope. This is situated 5½ miles northeast of Sloatsburg and 1½ miles north of Stony brook. The overhanging was spacious but the roof was but 5 feet from the floor.

20 Rock shelter at Mine hill southwest of Pound hill. This rock shelter is situated close to the boundary line between Rockland and Orange counties. Mr Schrabisch, who discovered the shelter describes it as follows: "Its lofty roof juts far out in front, there is

boulder parallel to the ledge and forming with it a pas-
bout 20 feet long and 5 feet wide. To the left of it a
s as high as the cliff stands outside. This remarkable
been but partly explored. . . . Examination of the pas-
veals some slight traces of an ancient fireplace near the
idicated by blackened soil, heat, stones, etc."

Staten Island[1] (Richmond county)

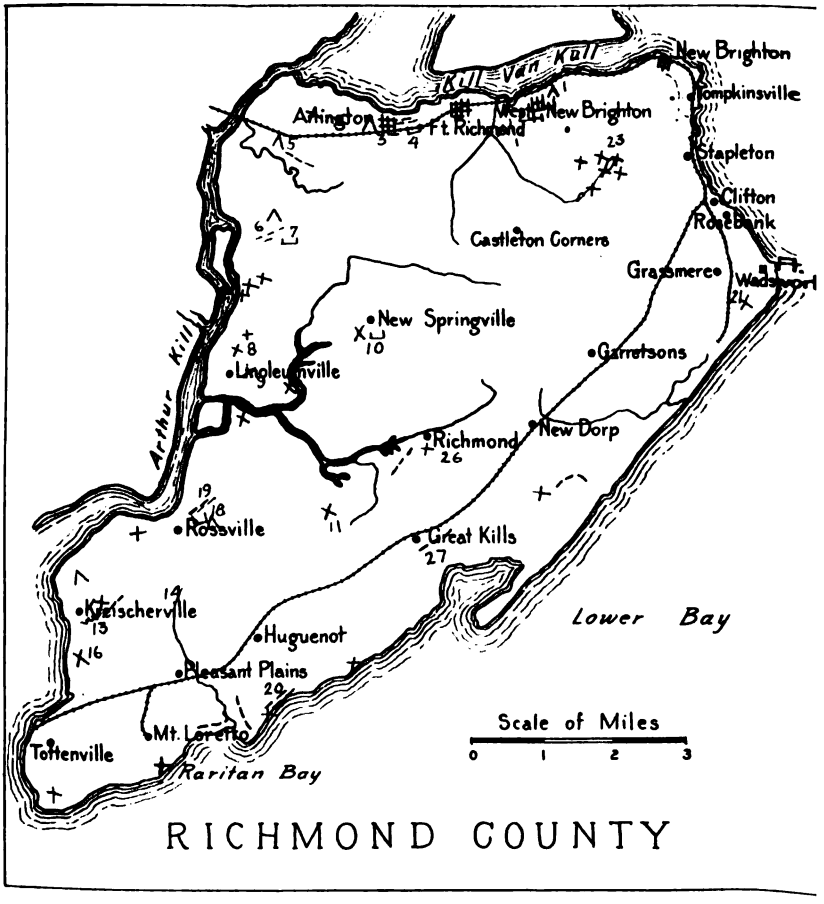
List of Sites

ge and burial site and burial ground at Upper or Pelton's
between Livingston and West New Brighton. When
oad was cut through this place many years ago, numbers
s were found. This site is now obliterated. During the
twenty years there has been absolutely nothing to show
occupation. Old people now living remember when a
lune was to be seen at this spot, and the finding of human
other objects washed out by rains. In Hagadorn's
ander," June 4, 1856, the following account concerning
urs: "Mr Dissosway's lecture on the Indians of Staten
Friday evening, was attended by many of our most
itizens. The church was filled as usual. Mr Dissosway
s audience with a mass of historical facts and incidents
ictive and interesting. At the close of his remarks, he
the audience some skulls of the Red men, found on Mr
on's farm, together with their arrows and other articles
n in peace and war. Mr Pelton had very kindly sent
society that the public might have an opportunity to see

e site, now obliterated, has been reported at West New
his is said to have been situated in part between Cedar
streets. When the foundation for the new parish house
h of the Ascension was being dug in the spring of 1903,
ons and implements are said to have been found. A
hammerstone and a small fragment of pottery were
writer. The skeletons, or rather the human bones seen
, were recent white men's bones; but we were told that,

[1] ation concerning the sites on Staten island has been taken
ion supplied by Alanson B. Skinner and contained principally
on the "Lenape Indians of Staten Island," in volume 3, of
gical Papers of the American Museum of Natural History.

Plate 211


Kill Van Kull
New Brighton
Tompkinsville
Arlington
Ft. Richmond
New Brighton
Stapleton
Clifton
Rose Bank
Castleton Corners
Grasmere
Wadsworth
New Springville
Garretsons
Arthur Kill
Richmond
New Dorp
Rossville
Great Kills
Lower Bay
Huguenot
Pleasant Plains
Mt. Loretto
Tottenville
Raritan Bay
Scale of Miles
0 1 2 3
RICHMOND COUNTY

in the older part of the graveyard, skeletons were found in unmarked graves, with which implements were discovered. As these skeletons were said to have been flexed in the usual Indian fashion, possibly the succeeding whites selected the same spot for their graveyard that the Indians had used, as has often happened. It is improbable that Indians and white settlers used the same burial ground simultaneously; although there has been a cemetery here for many years. The objects said to have been found were stone axes and the like, while Indians at the time of the settlers would undoubtedly have had the iron tomahawk and usual trade articles. It is to be regretted that no one versed in archeology was present at the discovery of these Indian graves, if such they were. At Mariner's Harbor, beginning about one-half of a mile south of the station and running north to Bowman's point, in every field are traces of prolonged occupation, fire-cracked stones, flint chips, potsherds and the like. Two spots, however, are deserving of special mention.

3 On South avenue, just opposite the Arlington station of the Staten Island Rapid Transit Railroad is what remains of a once much larger low sandy knoll most of which has been dug away. In May 1902, half a dozen shell pits were opened, all of which averaged from 4 to 6 feet deep, with about an equal breadth. They were all bowl-shaped and contained animal bones, oyster shells, etc. Several bone and antler implements, a quantity of typical Algonkin pottery, fragments of quite a number of clay pipes, stone arrow points, scrapers, hammerstones and a flat, thin, double-sided mortar or metate were found. A portion of a pestle, a grooved axe, and a grooved adze were picked up nearby. Several small shell heaps averaging 10 by 6 feet, and from 4 to 6 inches deep, containing the usual camp refuse, were also opened. In the nearby fields, portions of a couple of banner stones, grooved axes, a couple of celts and a number of celt blades were picked up. Celts are very rare on the north shore of Staten island; Mr Skinner in ten years of collecting says he has never obtained a single specimen, and has not seen more than two or three. A stone gouge, the only one reported from Staten island, was also found near this site.

4 Mariners' Harbor. Bowman's brook site is situated on the shore of Kill van Kull, running inland for some distance along the north shore of Bowman's brook, or, as it is often called, Newton's creek or Deharts brook. In the early spring of 1903, the firm of Milliken Brothers started work on a large steel plant which now covers the entire ground once occupied by this site. As the sand

was dug out and carted away, the shell pits, fireplaces and refuse dump of a large village were exposed and many examined by us. Later the village cemetery also came to light. Probably from fifty to one hundred pits were exposed in all, during the years 1903-7 and the contents of most of these were lost. These pits were bowl-shaped and, like those at the site at Arlington station, averaged from 4 to 6 feet. In some cases the pits had the appearance of having been used for some time, probably as garbage dumps. A layer of fresh, clean sand having been thrown over them when they became offensive, a new deposit of refuse was started, a practice which now may be observed sometimes among both whites and Indians. In one case, the complete skeleton of a dog, laid out in regular order on one side, was found. It was buried at a considerable depth, and covered with a layer of oyster shells and charcoal. The abundance of potsherds on this site was remarkable, and the earthenware varied greatly in quality and design. The majority of the specimens were of the typical Algonkin type, but some were distinctly Iroquoian in design. The constricted neck, raised and peaked rim, notched angle, and, in one case, a crude attempt at depicting the human face, pointed clearly to the influence of the Mohawk or other Iroquois. The fragments of the vessel just referred to showed the pot to have been one of very large size. It was decorated by a series of incised lines in a sort of chevron pattern; at intervals, curious little knobs occurred on which the human face was represented by three incised lines, two for the eyes and one for the mouth. As far as the writer knows, no other article has been obtained in this neighborhood. Implements of bone and antler were comparatively abundant, though lacking in variety. They comprised bone awls, antler cylinders and turtleshell cups. A notable object was a fragment of an antler implement apparently a pin, which had a carved head. Stone implements, such as arrow points and grooved axes, were fairly abundant; but no celts occurred. At first no burials were discovered; but later, widening the railroad cut disclosed many on the southerly side of the knoll on which the village was situated. The skeletons were found beneath 3 or 4 feet of sand, as a rule; and in the case of regular burial, always with arms and knees flexed. As many as four of these were found in one grave. No relics of any kind occurred with them except in one instance.[1] In some instances "bone burials" occurred. Apparently the flesh had been allowed to rot away from the bones; they

[1] The graves explored by George H. Pepper at Tottenville, some years ago, were different in that they almost invariably contained relics.

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These pits were
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iably contained relics

Plate 212



Types of coastal Algonkian pottery from Mariners' Harbor, Staten Isl
Alanson Skinner, collector. Nos. 1, 2, 4 are typically Algonkian, but No
5. 6, 7, 8 show Iroquoian influence.

were then buried in a hole and covered with sand. A burial of the more regular form was thus described by the writer in the Proceedings of the Staten Island Association of Arts and Sciences, for May 1906:

"On May 12, 1906, while carrying on my investigations on the prehistoric Indian village site exposed by the building of Milliken Brothers' (steel) foundry at Mariners' Harbor, a grave was found exposed by the recent enlarging of the railroad cut which runs through the plant (bisecting the Bowman's brook site). The grave was found about 10 feet south of the first one which I had opened in that vicinity. It was about 7 feet broad by 5½ feet deep and of peculiar structure. A streak of black earth ran through the yellow sand and formed a bowl-shaped pit. This streak was about 6 inches thick, broadening into pockets at both ends, and contained relics. At the bottom of the pit were some very large sherds, which were later restored and found to be the rim and most of the sides of a pot of typical Algonkin style. The bottom only is missing. On the sherds lay several stones, which indicates that the pot was whole or nearly so when placed in the grave, and that the stones had been cast upon it with the purpose of breaking it. About 1 foot higher than the sherds and 3 feet to the west was found the skeleton of a person above average age, flexed as usual, heading north, with the face to the east. The skull was crushed, probably by the weight of the earth. No relics were found with it, but an oyster shell lay upon the bones of the hands, which were folded before the face. Fire-cracked stones also lay upon and near the skeleton. A small pocket of blackened earth immediately surrounded the skeleton, but the other soil within the black boundary was hard, compact, yellow earth. About 8 inches above these was a deposit of oyster shells about 2½ to 3 feet thick above the bones. With this exception, no relics were found with any skeletons taken out personally or removed by laborers. During the summer a perfect pottery vessel is said to have been found by the workmen, but whether with a burial or not the writer was unable to ascertain. It was described as being of typical Algonkin style without any attempt at ornamentation. The vessel has disappeared and it is alleged to have been sold to a collector in New Jersey. While still with this subject, it may be interesting to mention that a skull found by the writer, from this site, has more than twenty Wormian bones."

This site is now practically obliterated, as the "Indian fields" northward to Bowman's point.

5 On Tuinessen's, or Old Place Neck, there is a large village site. Near the extreme point are shell pits and fireplaces, unusually far apart. Some of the refuse pits here are of considerable size and depth. Evidently this is a site the date of which can be placed at the early historic period. Pottery occurs, bearing a strong resemblance to the Iroquoian, though not so marked as that found at the Bowman's brook site. A brass arrow point, gun flints, leaden bullets, a pewter trade ring, fragments of trade pipes, etc., have been found on the surface, and a tiny piece of brass kettle, perforated (perhaps for suspension), came from a shell pit on this site. Trade articles are generally rare throughout Staten island. Iron trade axes have never been found, nor has the writer ever seen any from hereabouts, although they are often mentioned in early deeds. No antler or bone implements have been found here. Graves, with relics in or near them, were reported on the property of the Rev. James Kinney some years ago. Some graves opened here by the writer proved to be those of whites.

6 Bloomfield (Watchogue). There is no special large village site in this region, but relics occur more or less abundantly on all the dunes and sandhills. A stone plummet (?), grooved axes, Iroquoian pottery, pipes, arrow points, etc., have been found here. Isaiah Merrill has a fine collection of objects said to have been collected about here, among which is a steatite bead. An inscribed clay bead, with incised figures, is also said to have been found here. The site is peculiar on account of the scarcity of shell pits and similar remains. Relics occur almost entirely as surface finds. Celts have been found. A fine perforated arrow point was found by the writer some years ago at a spot where Iroquoian pottery was frequent. Objects which seem to be gun flints, but are chipped from native yellow jasper, etc., were in the collection of Mr Merrill. These seemed to the writer to be authentic, and it is possible that the Indians did manufacture these useful objects rather than buy the English flints from the whites. The stone bead in Mr Merrill's collection is pink steatite, thick, square and altogether remarkable. It is said that Mr Merrill had at one time a "handful" of these beads; but when the writer viewed the collection, some years ago, only one remained. Other notable objects in his collection were a banner stone, fragments of others and several celts.

7 At the angle of Watchogue road, near its junction with Union avenue, graves are reported to have been found. The site is well known locally as the "burying ground." Several grooved axes have

is site. Attempts to locate any remaining graves have
sful. Another dune with relics is between Chelsea and

lodges and some shells are found along the north
Neck.

lodges are to be seen on the south side of Long Neck,
e's island; also a shell heap, with pits, which contain
ics are found all over the end of the neck, but nowhere
ccavations on the south side of the neck proved unsuc-
ell heap there being apparently only a shell-fish drying
; Meadow island, a sand dune rising from the salt
many indications of being an Indian site. There are
, however.

s said to be located at New Springville on Corson's
and graves are reported; also an iron arrowhead. The
been successful in personally locating this site, up to
ality differs from almost all the others on the island,
il is not sandy, and we have seen no indications of
ıpation of any kind. Many people have said that they
implements there, however, and at one time a skull,
ian, was found in the bed of Corson's brook after a
ten away the banks.

site is reported between Journeay avenue and Anna-
· Richmond Plank road, which contains early relics.

a small village site on Lake's Meadow island, with
eap, where are found early relics of Indian origin. In
sister, Miss Helen Thoreau, dated from Staten island,
Thoreau says, " Last Sunday I walked over to Lake
. . . As I was coming away, I took my toll out of
: shape of arrowheads, which may after all be the
rtainly not effected by drought."

g up Sandy brook and from there to Kreischerville.
' Indian fields." Inland at Woodrow there are relics
y brook. Relics occur at Sandy Ground, on the farm
, sr, and also near one of the clay pits in the woods,
ıll others.

from the Sandy brook to the Wort farm are remark-
ımber of stone mortars found there. According to
l and Isaac Wort, some very peculiar burials were
ng the leveling of a knoll on the property of Samuel
ars ago. When earth was being removed, a stone-

walled "chamber" was discovered, and, on removing the stones, several skeletons were found, with many relics, including a great many arrow and spear points and a "stone bowl" (probably a steatite pot). None of these objects now remain; but most of the stones taken from the grave are still to be seen piled up near the original site. There are very many of these, which appear to have been brought some distance. A number show the action of fire. Isaac Wort claims to have found other similar stone graves thereabout, but says they contained no relics. He also says that, in his boyhood, iron trade axes were abundant on these sites; but unfortunately none has survived the years. Glass beads, etc., have been found.

15 Lodges, shells, etc., run from Cedar hill to Winant's brook.

16 There are sites all along the shore to Kreischerville, with early relics. All the sandy fields along the shore yield relics but here and there shell pits and heaps proclaim more specialized occupation.

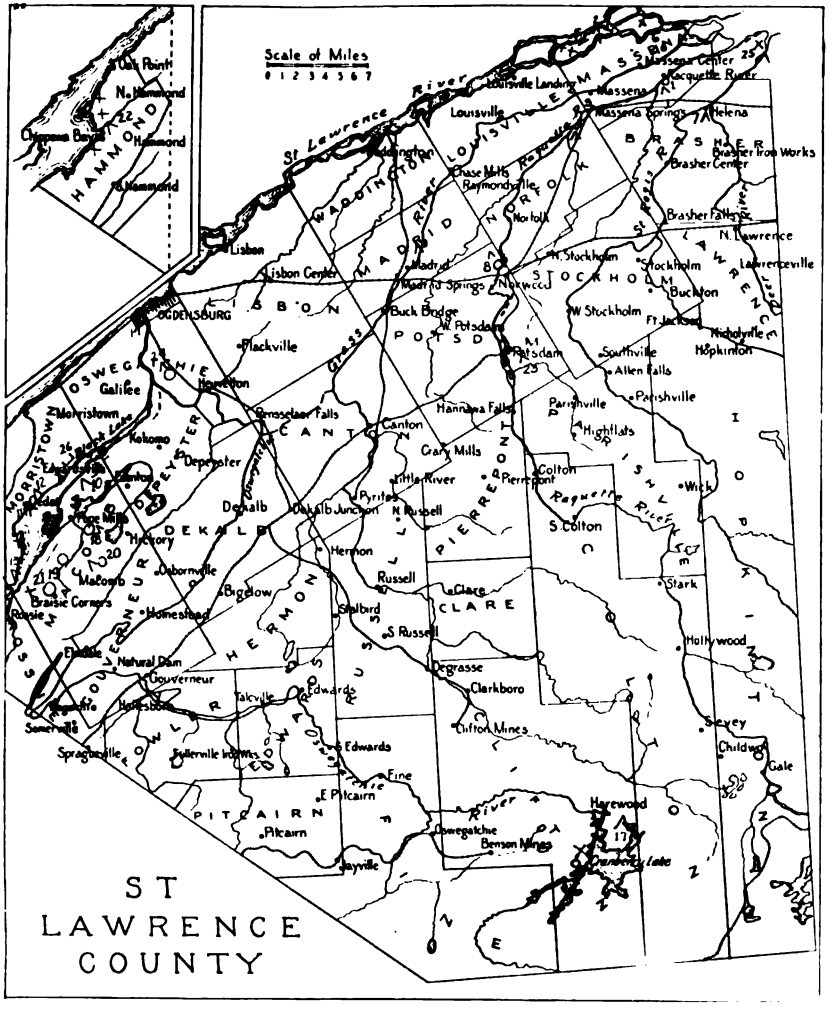
17 At Burial point graves are said to have been found.

18 One site, near Rossville post office, had yielded very many arrow points, of a strange archaic "double-ended" type. There is a large shell heap in this field, containing pottery. A hill near the Rossville road is known to local collectors, as "Hammer Stone hill," on account of the abundance of pitted hammerstones found there. Brass thimbles, etc., have been found.

19 Extensive shell mounds may still be seen near the Billop house. Burial ridge, nearby, was excavated by George H. Pepper for the American Museum in 1895. Horn and bone implements are found, bearing traces of fabrics and copper. Shells occur all over the point, and as far north as Richmond Valley. A grooved axe weighing 12 pounds was found here. During the past few years excavation on some sites has been prohibited, and little plowing has been done; so that surface hunting was profitless. Clandestine attempts at digging in the famous "Burial ridge" met with no success on account of the comprehensiveness of former excavations. In former years, however, much was written about this site, especially by George H. Pepper, Capt. R. D. Wainwright and others. The shell heaps themselves have been little worked, except by Max Bedell of Pleasant Plains; but there is considerable literature extant concerning the famous "Burial ridge."

20 Huguenot. A small shell heap is located on the bluff overlooking the bay, near Sequine's point. This is only a small shell heap at a point where the Indians probably camped while fishing. A few

Plate 213


Scale of Miles
0 1 2 3 4 5 6 7
St Lawrence River
Oak Point
N. Hammond
Hammond
Chippewa Bay
HAMMOND
Lisbon
Lisbon Center
OGDENSBURG
Waddington
Louisville Landing
Louisville
Massena
Massena Center
Massena Springs
Helena
Brasher Iron Works
Brasher Center
Brasher Falls
N. Lawrence
Lawrenceville
Madrid
Madrid Springs
Buck Bridge
Raymondville
Chase Mills
Norfolk
Potsdam
N. Potsdam
Stockholm
N. Stockholm
W. Stockholm
Buckton
Ft. Jackson
Nicholville
Hopkinton
Southville
Allen Falls
Parishville
Hannawa Falls
Canton
Gary Mills
Little River
Pyrites
DeKalb
DeKalb Junction
N. Russell
Colton
Pierrepont
Hightlats
Witch
Raquette River
S. Colton
Stark
Hollywood
Hermon
Russell
Clare
Shelbird
S. Russell
Degrasse
Clarkboro
Clifton Mines
Stacey
Childwold
Gale
Harrewood
Edwards
Fine
E. Pitcairn
Pitcairn
Oswegatchie
Benson Mines
Jayville
Cranberry Lake
Fullerville Works
Sprague Ville
Talcville
Natural Dam
Gouverneur
Hailesboro
Somerville
Brasie Corners
Rossie
Homestead
Malcomb
Osbornville
Bigelow
Hickory
Morristown
Galilee
Oswegatchie
Depeyster
Kokomo
Edwardsville
Mackville
Rensselaer Falls
ST LAWRENCE COUNTY

24 A camp site is located on Harbor hill near Harbor brook and Lafayette avenue.

25 A camp site occurs near the junction of Bard avenue and Clove road, at the foot of Nanyberry hill, just above Schoenian's pond. Most of these sites are fully described in the Proceedings of the Natural Science Association of Staten Island for January 10, 1903.

26 A large camp site is back of Richmond in a clearing in the woods near Ketchum's Mill pond, on Simonson's brook, where grooved axes and other relics have been found. It is near Richmond creek and distant from all other sites. The ground is hard, with many boulders, as is the case at Silver lake, and no shells whatever appear. Up to date, no pottery has been found; but the writer has never had an opportunity to examine the site thoroughly, as it has never been plowed or bared of vegetation during his time. He has found a few objects, however, and formerly a number were obtained by others.

27 A shell heap has been reported on the salt meadow near Lake's mill. A search by the writer has led to the discovery of a few shells on the meadow toward Giffords, which are apparently aboriginal. No pottery or relics occur, but a few flint flakes are found. Apparently, this is a "clam-drying" place. We have been shown and have found a few arrow points in this vicinity, but they occurred on higher ground.

28 On Ward's hill, near Cebra avenue, many triangular so-called "war-points" have been found in a small area. Such an abundance of these war-points, so far from any known camp or village site, is remarkable.

St Lawrence County

List of Sites

1 Village and fort southwest of the railroad bridge at Racquette river. The earthwork was an irregular inclosure with an open side toward the river. It seems to have been the place for a stockade. There was a deep ditch surrounding the wall. Doctor Beauchamp figures this site as 91 in his aboriginal occupation.

2 Burial site in the town of Massena on Long Sault island, on the property of the St Lawrence Power and Development Company.

3 Fort site, a mile southwest of Massena on a hill overlooking the Racquette river.

4 Village site at east end of Long Sault island. An abundance of pottery has been reported from this place and graves have been discovered.

Long Sault island and a mound south of the
ɜly mentioned. The occupation is similar to that
ler culture and numerous interesting relics have
ıg these may be mentioned gorgets, gouges, large
, a cache of large quartz blades, coarse cloth of
ıts, a cache of large quartz blades, coarse cloth of
l monitor pipes and stone beads.
ıile east of Massena Center. Stone mortars and
lics have been reported.
ır Helena on the St Regis river, in the town of
erable number of pipes and broken pottery have

the farm of H. C. Holbrook on lot 10, in the
'ostdam. The work is described as semicircular,
and one-half of a mile north of the river at
here were several gates and there were fire pits
thout the inclosure.
ır mill pond, near the village of Madrid.
ear the narrows on Black lake, and on a rise of
dsville. This site covered considerable territory.
ɜs on a bluff rising from Black lake near Cedars.
ɜar a small stream in lot 45, in Morristown town-
ıear the Cedar settlement.
the west end of Black lake on a rise of ground

ı the St Lawrence river near the present city of
seems to have been the Jesuit mission of "La

ɜite at Indian Point of La Galette.
ı lot 20, near Ogdensburg. This is described by
he ditch on the inside and Beauchamp gives a
ɜ figure 70.
ɜn the shores of Cranberry lake. No definite

the town of Macomb along Birch creek near
described by Hough and figured by Beauchamp.
mination of the site revealed that most of the
ı destroyed but that broken pottery flints and
were abundant. The occupation was Iroquoian.
ıilar in form on a hill near Birch creek.

Plate 214

and a mound south o
occupation is similar to
erous interesting relics
ioned gorgets, gouges,
uartz blades, coarse chert
quartz blades, coarse chert
stone beads.

Center. Stone mortars
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Regis river, in the tow
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Holbrook on lot 10, i
is described as semicircu
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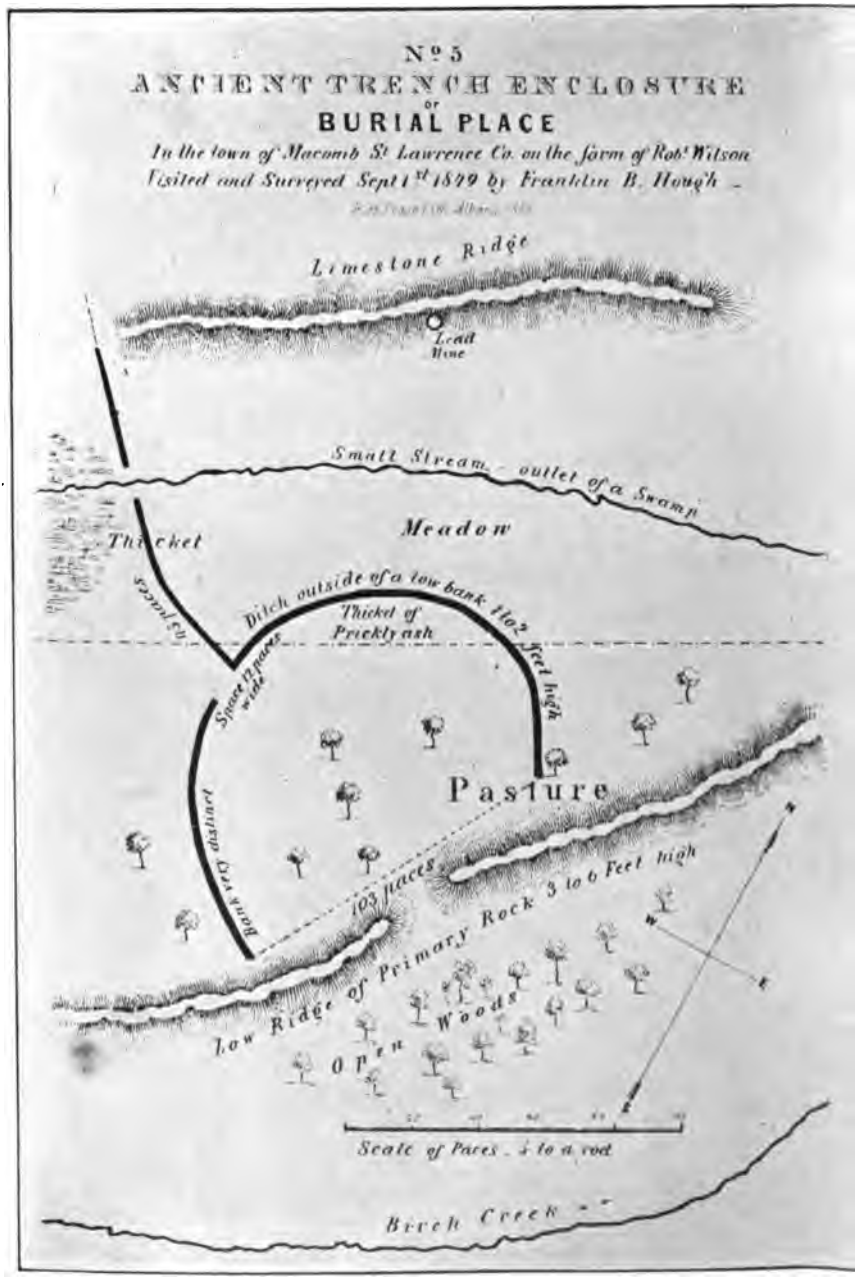
Cranberry lake. No de

omb along Birch creek
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ite revealed that most o
nat broken pottery flint
The occupation was Iroq
hill near Birch creek.



Plate 214

Plate 215


No 5
ANCIENT TRENCH ENCLOSURE
or
BURIAL PLACE
In the town of Macomb St Lawrence Co. on the farm of Robt Wilson
Visited and Surveyed Sept 1st 1879 by Franklin B. Hough
Limestone Ridge
Lead Mine
Small Stream outlet of a Swamp
Meadow
Thicket
Ditch outside of a low bank 4 to 7 feet high
Thicket of Prickly ash
103 paces
Space 17 paces wide
Pasture
Bank 4 to 7 feet high
103 paces
Low Ridge of Primary Rock 3 to 6 Feet high
Woods
Open
Scale of Paces 4 to a rod
Birch Creek

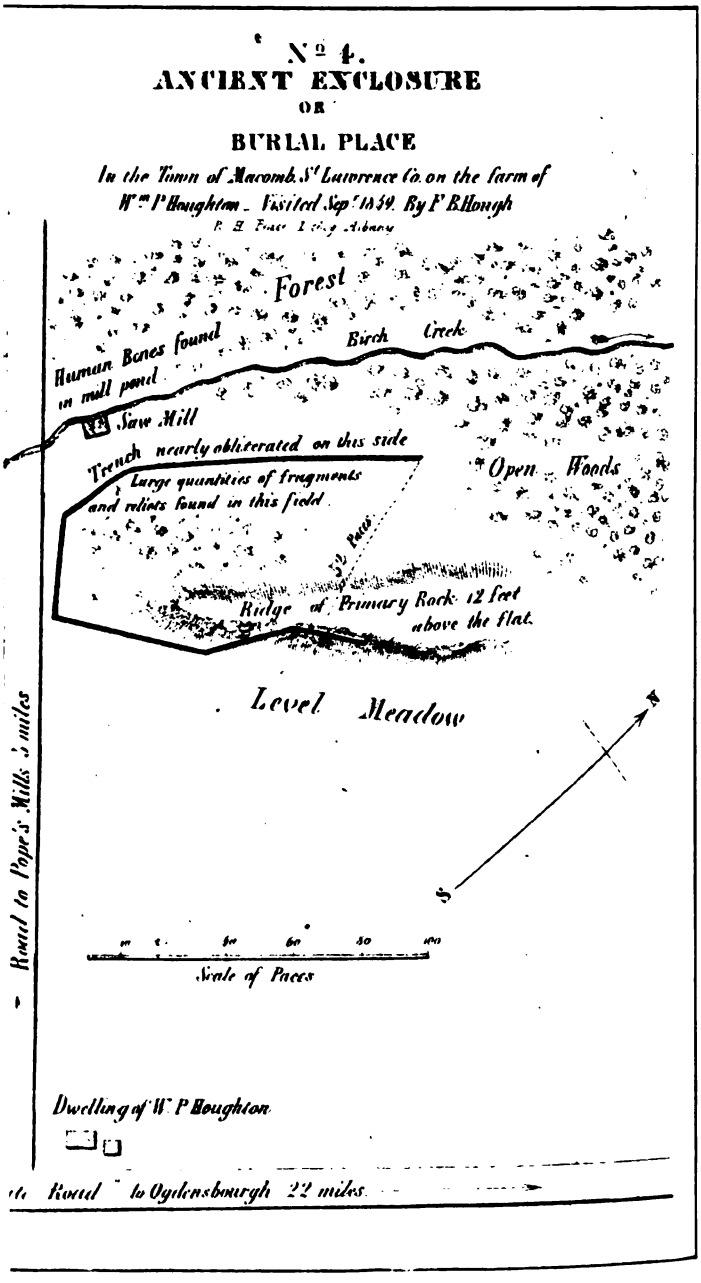
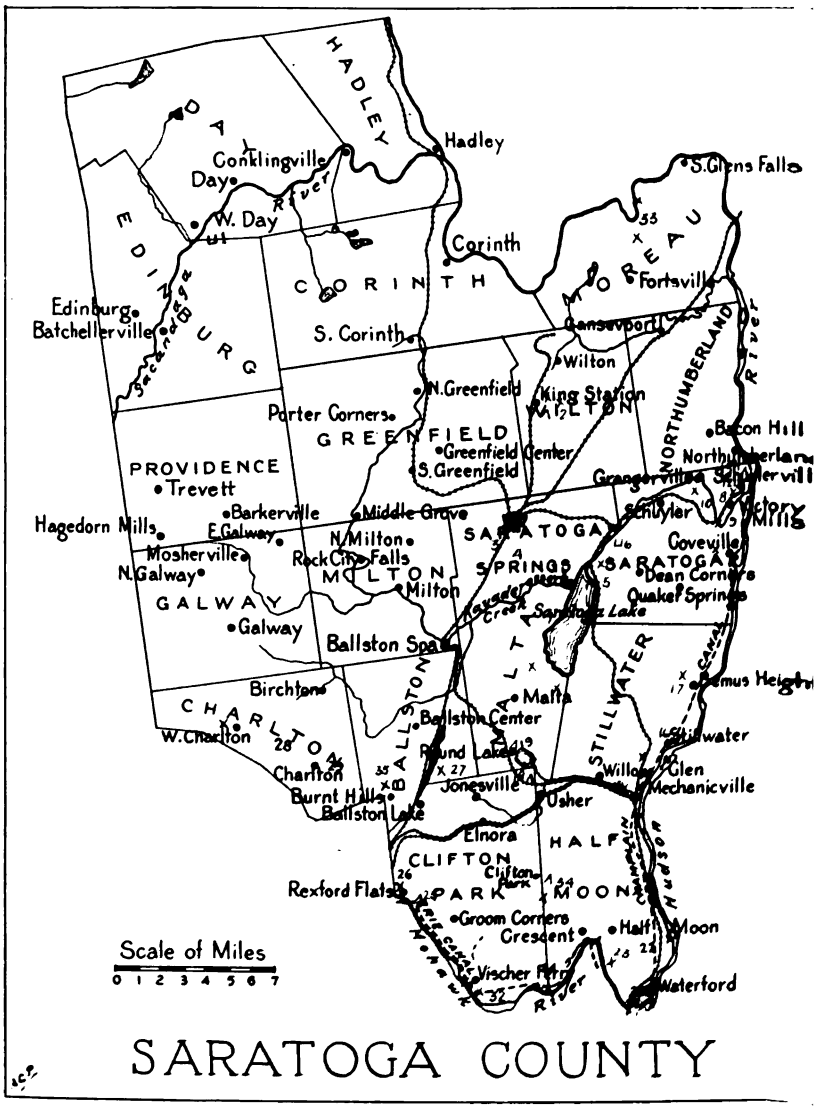

№ 4.
ANCIENT ENCLOSURE
OR
BURIAL PLACE
In the Town of Macomb St Lawrence Co. on the farm of
Wm P Houghton. Visited Sep. 1839. By E. B. Hough
Forest
Human Bones found in mill pond
Birch Creek
Saw Mill
Trench nearly obliterated on this side
Large quantities of fragments and relicts found in this field
Open Woods
Ridge of Primary Rock 12 feet above the flat
Level Meadow
N
S
Scale of Paces
Dwelling of W. P Houghton
Road to Pope's Mills 3 miles
Road to Ogdensburgh 22 miles

Plate 217



SARATOGA COUNTY

20 Village and earthwork on the W. P. Houghton and J. Sweet farm in Macomb township and near Macomb (figure 94).

21 Circular wall on the property of the St Lawrence Lead Mining Company near Brasie Corners. Hough describes it on page 20 of his account and Beauchamp gives a drawing in his figure 8.

22 Village site on the shores of the St Lawrence at Chippewa bay. There are evidences of a lengthy occupation by several different peoples.

23 Camp south of Potsdam where arrowheads and spear points have been found.

24 Earthwork on lot 20, Oswegatchie, along the river. Beauchamp describes this as on B. Pope's land.

25 Camps along the St Regis river near the mouth and one village site on the south side.

26 Burial site on a hill northeast of Edwardsville. A pendant gorget was found there in 1910.

Much work remains to be done in St Lawrence county, especially along the St Lawrence and its tributaries. The river formed a natural route for many migrating peoples.

Saratoga County

List of Sites

1 Burial place on the south bank of the Sacandaga near the village of West Day, near the town line of Edinburg.

2 Camp sites near the Mill pond on Snookkill, in the town of Wilton. A considerable number of relics have been found in this vicinity.

3 Village site near the present site of the town of Saratoga Springs. It is evident that the Indians used the water at the springs and camped along the escarpment.

4 A village site situated at the Gravel hill in Saratoga Springs.

5 Camp sites with early relics are reported by the Rev. O. C. Auringer all about Saratoga lake.

6 Burial site in which pottery has been found near the village of Saratoga Lake and just south of the outlet along the bridge road.

7 Village site on Arrowhead farm situated on a hill on the west side of Saratoga lake and the Keyaderosseras.

8 Camp sites near the mouth of Fish creek.

9 Village site in Victory Mills about 4 miles from the river.

10 Trails with scattered camps along Fish creek to Saratoga lake.

11 Village site in Schuylerville.

12 Burial site in Schuylerville yielding modern relics. Many graves were discovered when the foundation for the opera house was excavated.

13 Burial site in Schuylerville in which prehistoric relics have been discovered.

14 Small village site below Mechanicville near the mouth of a small stream and on the southeast side. This site is nearly opposite the Kings farm site in Rensselaer county, town of Schaghticoke.

15 Scattering relics have been found along Anthony kill west of Mechanicville.

16 Camp site yielding articles near the village of Stillwater but now obliterated by the barge canal.

17 Camp site with arrowheads and other articles near Bemis Heights and south of the battlefield.

18 Village site covering extensive area on Round lake. The specimens found are numerous and seem to be of some antiquity, being considerably weathered and many of them crude. The State Museum has five or six slate knives and several fragments of semilunar knives from this site.

19 Small village site near the inlet of Round lake.

20 Extensive site on Poebles island, near the mouth of the Mohawk. This is probably Unawats castle marked on the Van Rensselaer map of 1630. Chipped red slate arrow and spear points have been found in abundance at the southeastern end of the island. There is an earthwork of the Revolutionary period at the other end, though flints are found in the fields about it. Albert C. Hurd reports that the most productive portion of the site is at the northeast end of the island and on either side of the railroad tracks.

21 Village site mentioned in the Iroquois tradition, just above Cohoes Falls and on the east side of the Mohawk. A few relics have been found on the west side.

22 Several camp sites in the vicinity of Halfmoon.

23 Camp sites south of the road from Crescent to Halfmoon, along the river.

24 Village site near Vischers Ferry now destroyed by the barge canal.

25 Camp sites near Clifton Park. The State Museum has a number of relics from this vicinity.

26 Camp sites near Rexford flats.

Plate 218

SEUM

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h prehistoric relics

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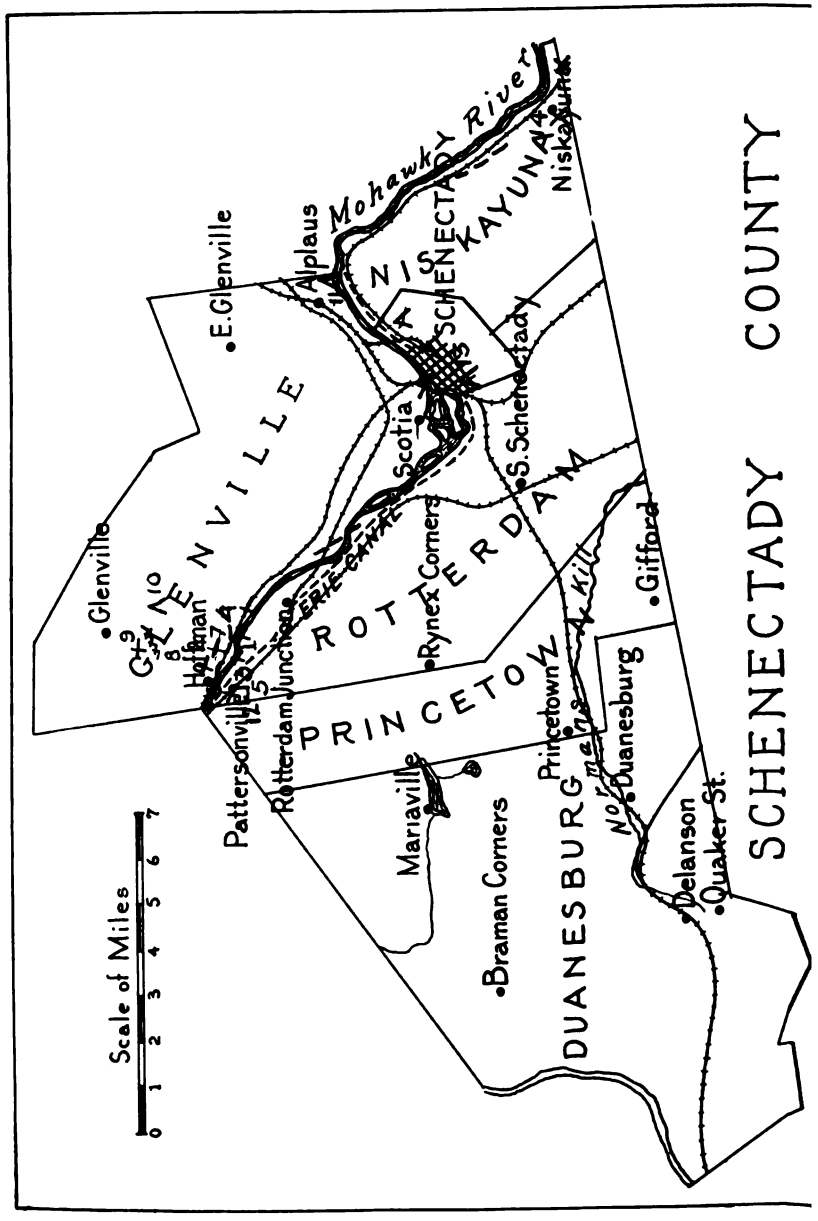
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Plate 218



27 Camp sites reported on Balls
28 Camp site in Charlton on th
29 Camp site on the eastern marg
of Charlton. A considerable numb
stones were found here. Mr Van
site and said it was explored by H. B
30 Cache near Consalus vlie contai
flint blades. With these blades were
about 2½ inches in diameter. The lo
H. B. McWilliam.
31 Camp about three-fourths of a m
sites and on the headwaters of a small str
Charlton and uniting with Crabkill or
Schenectady county. Mr Van Epps belie
that it was situated on the shore of an an
it as a lacustrine swamp.
32 Camps along the river at Vischers Fe
ber of relics have been found. Reported by
Epps.
33 Camps on the south side of Big Bend i
34 Village and camp site just east of Clifto
of Halfmoon.
35 Camp site near Burnt Hills.

Schenectady County

List of Sites

1 Camp site on the Mohawk in the town
in the bend of the river south of the railroad
miles west of the mouth of Verkill.
" 2 Camp site 2½ miles from the former
American Archeologist," 1894.
3 Camp site west of the river a
George Fick.
4 A series of camp sites
of the river one-half of a
5 Burial place with
ments, slate tubes, a
This site is in the
by Mr Van Epps,

6 Camp site on the farm of Aaron Bradt near Hoffmans Ferry. Some large flint knives and a stone tube were discovered here in 1899.

7 Camp site with a hearth about one-half of a mile east of Hoffmans Ferry exposed by the caving of the river bank. The hearth was about 2 feet below the present surface of the river bottom and was covered by alluvium.

8 Garden bed at the foot of a hill near the headwaters of Chautanoonda creek. This was about one-half of a mile west from the Glenville road to Hoffmans Ferry.

9 Camp site on the headwaters of Chautanoonda creek about 1½ miles from Glenville on the flats of the creek southeast of the Glenville road, on the farm of S. Alexander.

10 Village site on Touveuna hill directly south from Glenville and on the road that winds southward to the Mohawk and reaches it just east of Pattersonville. This site is especially rich in surface finds and has been described in the "Museum" Vol. 2 for 1896, also "Popular Science News" for 1902.

11 Village site covering about 5 acres near Rexford Flats. This is about 1 mile east of Alplaus, and about 3 miles northeast of Schenectady.

12 Burial site in the northwest part of Rotterdam about one-half of a mile west of Pattersonville village. This is on the low land at the foot of the hill and between the railroad track and the road, not far from the mouth of a small stream.

13 Village site within the present limits of Schenectady and along the banks of the Mohawk. Here were cleared tracts of land when the Dutch entered the region.

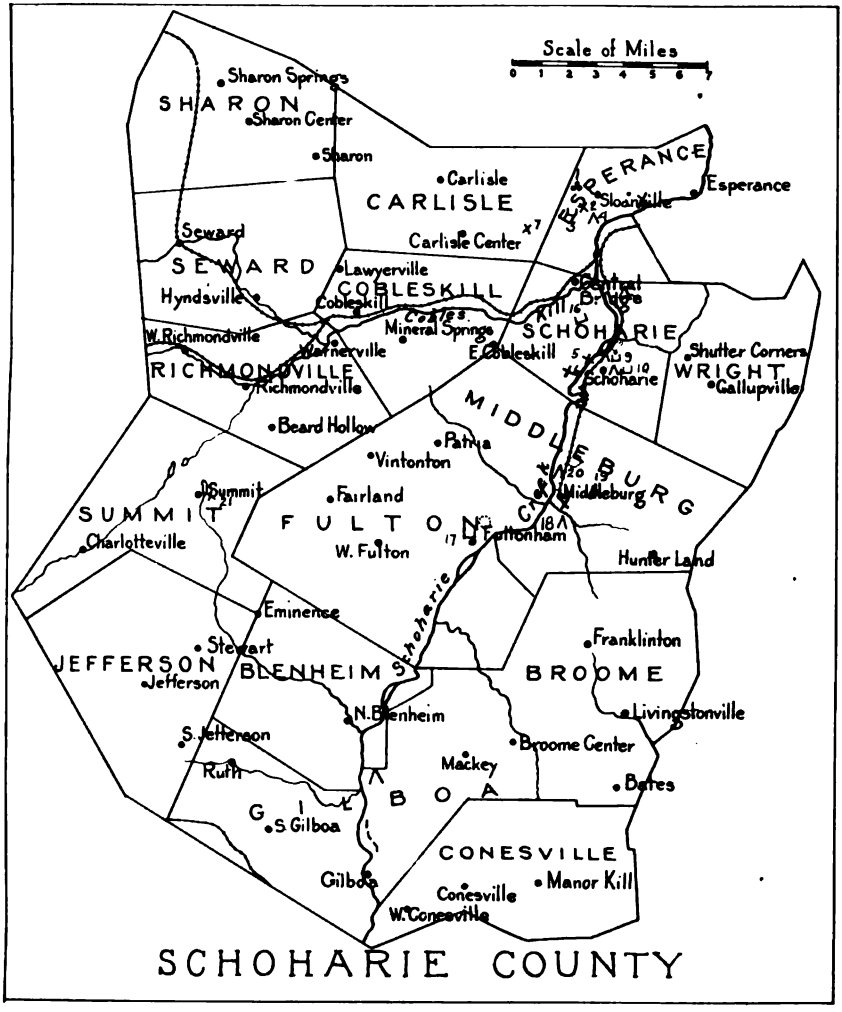
14 Camp site near Niskayuna on the south side of the river. Polished slate implements found here by Langdon Gibson.

Schoharie County

List of Sites

1 Ceremonial stone heap near Sloansville. This deposit of cobble and field stones was mentioned by the Rev. Gideon Hawley, 1753. It is said that each Indian who passed by the heap would cast a stone upon it. The deposit was about 4 rods long and from 16 to 30 feet wide and from 10 to 15 feet high. This stone heap has now been destroyed. It is mentioned by J. R. Simms in his history of Schoharie county (p. 632).

Plate 219


Scale of Miles
0 1 2 3 4 5 6 7
SHARON
Sharon Springs
Sharon Center
Sharon
CARLISLE
Carlisle
Carlisle Center
ESPERANCE
Esperance
Sloansville
SEWARD
Seward
Lawyerville
COBLESKILL
Cobleskill
Hyndsville
Central Bridge
SCHOHARIE
E. Cobleskill
Mineral Springs
W. Richmondville
Warnerville
RICHMONDVILLE
Richmondville
Schoharie
WRIGHT
Shutter Corners
Gallupville
MIDDLEBURG
Middleburg
Beard Hollow
Patria
Vintonton
Fairland
SUMMIT
Summit
Charlotteville
FULTON
W. Fulton
Fultonham
Hunter Land
Eminence
Schoharie
Stewart
JEFFERSON
Jefferson
BLENHEIM
N. Blenheim
S. Jefferson
Ruth
Franklinton
BROOME
Livingstonville
Broome Center
Mackey
BOAZ
Bates
GILBOA
S. Gilboa
CONESVILLE
Manor Kill
Gilboa
Conesville
W. Conesville
SCHOHARIE COUNTY

Schuyler County

List of Sites

1 Village site on the east shore of Little lake, lot 57, town of Tyrone.

2 Camp site on lot 58 near the outlet.

3 Large village site on the north end of Lamoka lake on the gentle slope between the hill and the lake shore, lot 52 Tyrone. There seems to be evidences of burial on the hillside.

4 Fishing camps are found along the Tobehanna creek.

5 Small village site in North Hector 1½ miles south of Mecklenburg. This site is near the Taghanic creek.

6 Village and burial site in the corporation of Watkins at the south end of Seneca lake.

7 Village site on a point of land near the mouth of Saw Mill creek, lot 30, Hector. This is near the village of Peach Orchard.

8 Camp site with relics reported in lot 1, Hector, on the shores of Seneca lake, near Valois.

9 Village site south of Montour Falls extending on either side of the inlet. This seems to coincide with the locality of Sheoquaga.

10 Burial site near Havanna Glen, near the monument erected to Charles Cook.

11 Camp site 1½ miles northeast of Tyrone.

12 Camp on Seneca lake inlet 2 miles south of Montour Falls.

13 Camp on Seneca lake west of Burdetts, near a small stream.

14 Camp on the south end of Cayuga lake.

15 Village and burial site south of Perry City, explored by Professor Crosby of Cornell.

16 Village site south of Mecklenburg near the creek.

Seneca County

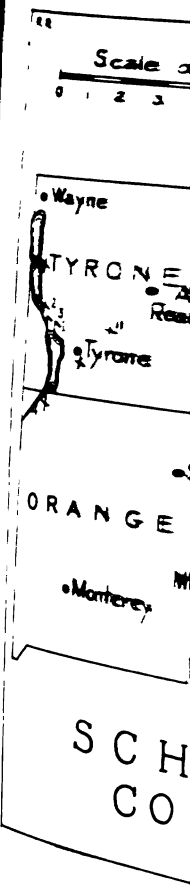
List of Sites

1 Camp site in the town of Waterloo, lot 90, and near the northern end of Seneca lake. Early relics are found here.

2 Camp site on lot 92 just east of the former and on the north side of the Seneca river. The larger portion of the site on this lot covers what was once a marsh near the river and lake. This piece of ground was plowed in 1878 when a large quantity of pottery, bone implements and stone articles was discovered.

3 A camp was just north of this on lot 91.

4 Village site in Waterloo on lots 2 and 4, town of Fayette, on the south side of the river. This site was extensive and there seems to have been at least two occupations represented.



y

ittle lake, lot 57, [illegible]

d of Lamoka lake
shore, lot 52 Tyrone.
illside.
Tobehanna creek.
½ miles south of
reek.
oration of Watkins

ar the mouth of
village of Peach
lot 1, Hector, on

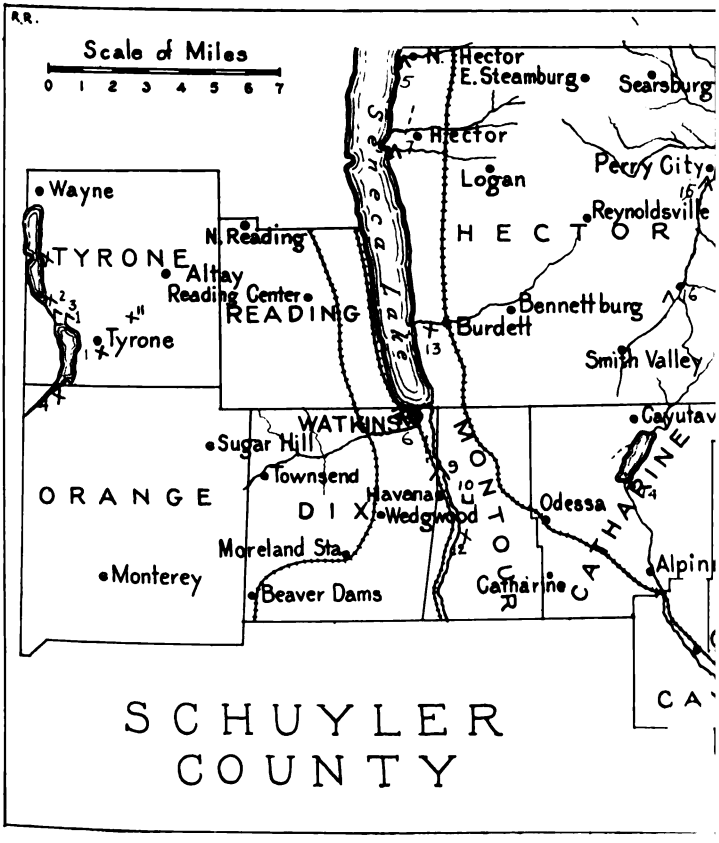
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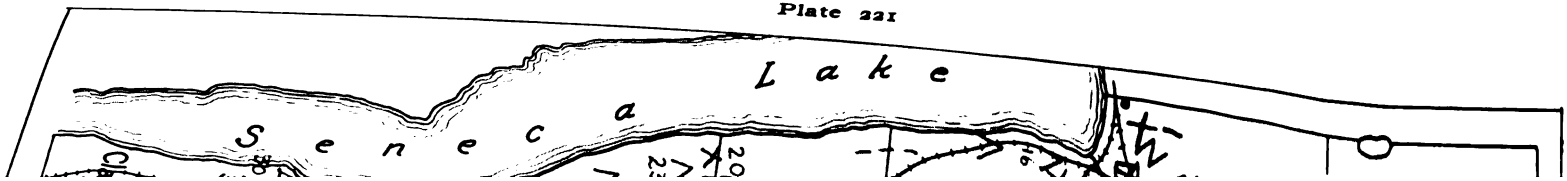
Tyrone.
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Perry City, explored

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found here.
the former and on the
portion of the site on
river and lake. This
arge quantity of pottery
covered.
lot 91.
2 and 4, town of
was extensive and there
represented.

Plate 220




Plate 221
Seneca Lake

SENECA COUNTY
Halcom
Junius
Tyre
TYRE
JUNIUS
Magee Corners
Seneca River
WATERLOO
SENECA
Waterloo
SENECA FALLS
Border City
Canoga
FAYETTE
W. Fayette
Fayette
McDougal
Varick
VARICK
E. Varick
Romulus
Kendaia
ROMULUS
Hayt Corners
Willard
Ovid
Ovid Center
OVID
Shelrake
Kidders
Farmer
Lodi
LODI
COVERT
Covert
Townsendville
Claywood
Lake Seneca
Lake Cayuga
Scale of Miles
0 1 2 3 4 5 6 7

Plate 221

5 Camp site at the mouth of Kendig's creek, lot 1, Fayette.

6 Scattered village site northeast of Geneva junction on lot 10. Colonial records say that there was a Cayuga village near this place in 1750.

7 Village site on lot 11 near a small brook running into the Seneca lake. There was a large site on the farm of R. J. Swan.

8 Camp site on lot 18, Fayette, on a bluff overlooking the lake. This was just west of Rose hill.

9 Camp site with early relics on lot 24 near the Lehigh Valley Railroad.

10 Village site on lot 15, Fayette, on the Shankwiler farm between two brooks running north.

11 Village site on the south bank of Canoga creek about one-half of a mile northeast of the present Canoga village. This was on lot 30. The village seems to have been that of Skannayutenate. which was burned by Sullivan in 1779.

12 Village site on lot 25, Fayette, which seems to have been the location of a small town also destroyed by Sullivan.

13 Village site on lot 41, Fayette, on the L. Disinger farm. This was the site of the new town of the Senecas.

14 Village site in the center of lot 33, Fayette. There was also a circular work having an area of 2 acres. Brass kettles and gun barrels have been found there.

15 In the centennial historical sketch of the town of Fayette by Diedrich Willers, the site is described: "a nearly circular bank inclosed several acres of elevated land. It was thick and high with an outside ditch. The trees growing within and on the walls were as large as those without. The two gateways were 5 feet wide and large stones protected the wall on either side of these. The principal gate was at the southeast and the smaller one at the northwest corner. An ancient cemetery was nearly a mile southeast of this fort, where human skeletons of unusually large size were found in mounds of earth."

16 Village site on the east shore of Seneca lake, lot 23, Fayette. Pottery has been found here.

17 Village site on a branch of Kendig creek, lot 26, Fayette.

18 Village site on the Lawrence farm northwest of Seneca Falls village and on lot 99. This was just north of the New York Central Railroad tracks.

19 Camp site on a small brook north of East Varrick, lot 74, town of Varrick.

20 Camp site on lot 64, Romulus, on Seneca lake.

21 Village site near Kendaia on lot 79, town of Romulus. This 2 miles from the shore of Seneca lake on the Van Vleet farm. he Seneca village of Kendaia was situated on lot 79 but was near ıe lake, being about one-half of a mile from the shore and on the ɔrth side of a small stream on the north side of the forks. This also on the Van Vleet farm. Sullivan's Journal describes a burial ace at this point and mentions a burial house that was built over a ɔdy and painted with several colors.

22 Village site on lot 67 in the northern part of the township ıd near a small stream running north from one of the sources of eeder creek.

23 Village site of early occupation west of Kendaia on lot 65 ıd on either side of a small stream at the mouth of a ravine one-ılf of a mile south of Dey's landing. There are shell pits and ·idences of considerable occupation.

24 Village site and earthwork on lot 93 north of Willard. This te is one-fourth of a mile east of Seneca lake and at the forks of isings ravine. Hinsdale describes this place as once having a dis-ıct wall with holes along the center, which pass from one branch the ravine to the other, inclosing a triangular spot 50 feet above e stream.

25 Camp site on lot 94 on a high bluff north of the steamboat ıding.

26 Camp site on lot 78, Romulus, near a small stream. This ems to be on the farm of D. D. Johnson.

27 Small village site on lot 1, town of Ovid, at the mouth of a ep ravine a short distance from Willard station.

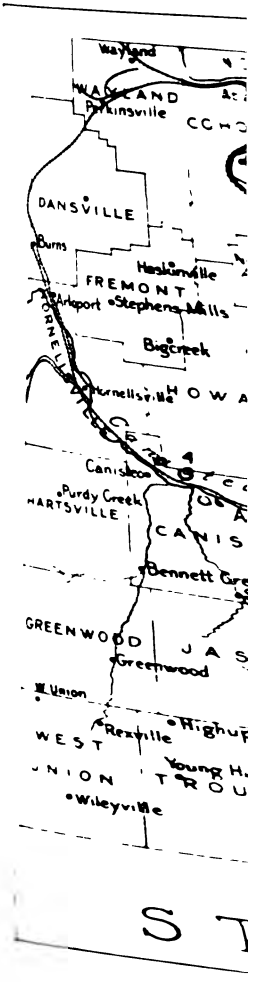
28 Earthwork on lot 29, Ovid, on the Charles Coleman farm about ıdway in the square of the four roads. It was an elliptical earth-ɔrk situated upon the hill and has been described by Delafield, ıose plan is copied by Beauchamp, figure 66.

29 Burial site on lot 29 on the Charles Ditmar's farm. This rial place seems to have been connected with the fort.

30 Village and burial place at Goff's point, lot 35, on the Town-ıd farm, Lodi. This is situated on the bank of Mill creek. Euro-an relics have been found in the graves.

31 Burial place south of Lodi Landing and south of Mill creek, lot 35, on the farm of Mrs G. S. Crisfield.

32 Village site on lot 44, Lodi, on the Dan G. Covert farm.



Seneca lake.
, town of Romulus.
e on the Van Vleet
ed on lot 79 but was
rom the shore and
h side of the forks.
Journal describes a
house that was built
ern part of the town
om one of the sources
est of Kendaia on
ne mouth of a ravine
There are shell pits
3 north of Willard.
a lake and at the forks
place as once having a
hich pass from one
ngular spot 50 feet
ff north of the stream
ar a small stream.
Ovid, at the mouth
l station.
harles Coleman farm
It was an elliptical
en described by Dele
66.
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l with the fort.
oint, lot 35, on the
bank of Mill creek.
and south of Mill creek
sfield.
Dan G. Covert farm.

Plate 222

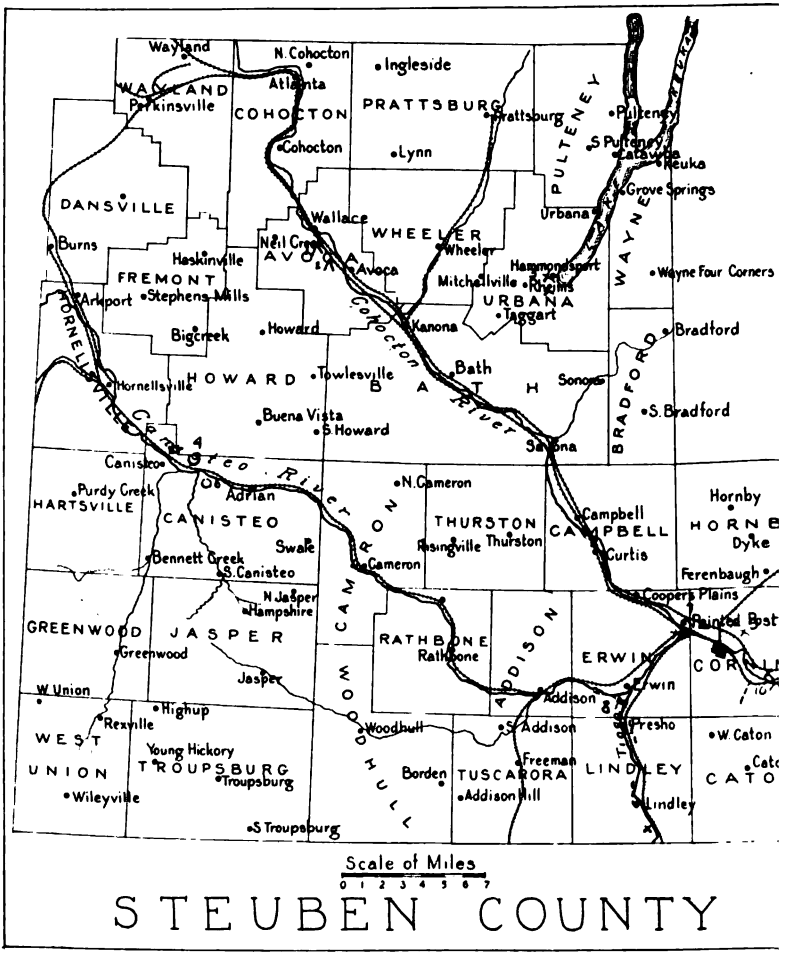


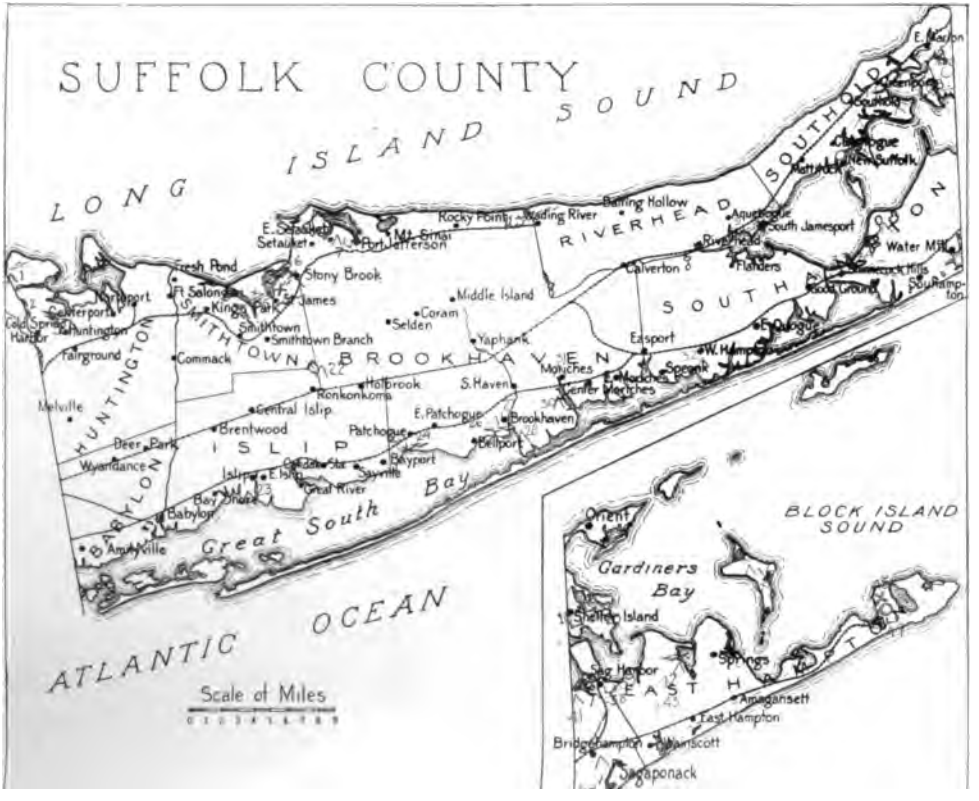
Plate 223

SUFFOLK COUNTY

LONG ISLAND SOUND



Plate 223


SUFFOLK COUNTY
LONG ISLAND SOUND
ATLANTIC OCEAN
Great South Bay
Gardiners Bay
BLOCK ISLAND SOUND
Scale of Miles
Rocky Point
Wading River
Riverhead
Aquebogue
South Jamesport
Calverton
Flanders
Water Mill
Fresh Pond
Ft. Salonga
Stony Brook
Kings Park
St. James
Middle Island
Coram
Selden
Smithtown
Smithtown Branch
Yaphank
Commack
Holbrook
Ronkonkoma
S. Haven
Mastic
Moriches
Eastport
Speonk
W. Hampton
Central Islip
Brentwood
Patchogue
E. Patchogue
Brookhaven
Bellport
Deer Park
Wyandance
Islip
Bayport
Sayville
Great River
Babylon
Amityville
Melville
Huntington
Islip
Smithtown
Brookhaven
Orient
Shelter Island
Sag Harbor
Springs
Amagansett
East Hampton
Bridgehampton
Wainscott
Sagaponack

1 Vill
2 Vill
3 Cam
lake.
4 Stock
5 A sec
these villag
of sixty hou
6 Stockad
7 Village
this locality.
8 Village si
Tioga river. T
On the Penns
Assinisink.
9 Site on Post
small camp sites
Low & Wallack t
10 Village site
and opposite the n
the south.
11 Village site n
creek on lot 16, Corn
12 Camp site and
the forks of Cowane
found pieces of sea sh

1 Village site and she
and on Cold Spring Harb
2 Shell heaps all along
3 Village site and exte
Albert Arthur property.
4 Burial site at St John
5 Shell heap at Nissequog

Steuben County

List of Sites

1 Village site in Avoca on the Haskin's farm.

2 Village site near Avoca on the Conklin farm.

3 Camp sites near Hammondsport and along the inlet of Keuka lake.

4 Stockade site in Canisteo.

5 A second stockade site of this kind is also described. One of these villages may have been the Canisteo of 1762, a Delaware town of sixty houses.

6 Stockade site on Colonel Bill's creek.

7 Village site near Painted Post. Graves have been found in this locality.

8 Village site near the junction of the Canisteo creek and the Tioga river. This is at the forks of the river in the town of Erwin. On the Pennsylvania historical map this site is indicated as Assinisink.

9 Site on Post creek north of Corning. This site and others and small camp sites in general lay on the Steele & Furman and on the Low & Wallack tract.

10 Village site at a bend in the Chemung river in East Corning and opposite the mouth of a creek flowing from the highlands to the south.

11 Village site near the county line on the north bank of the creek on lot 16, Corning.

12 Camp site and cache on the farm of Curtis Gyles a mile from the forks of Cowanesque and Tioga rivers. In the cache were found pieces of sea shells blocked out for discs.

Suffolk County

List of Sites

1 Village site and shell heap on the west side of Lloyds Neck and on Cold Spring Harbor.

2 Shell heaps all along the shore of Cold Spring Harbor.

3 Village site and extensive shell heaps in Huntingdon on the Albert Arthur property.

4 Burial site at St Johnland.

5 Shell heap at Nissequogue.

6 Large shell heaps at Stony Brook in Smithtown.

7 Village site and burial place near Port Jefferson. This was explored by M. R. Harrington in 1899. A number of burials were found in this place.

8 Shell heap near Jamesport on the Fred B. Conklin property.

9 Burial place near Jamesport on the shore southeast of Aquebogue.

10 Shell heap, on the Wallace Seaman property, Jamesport.

11 Large shell heap at Wading river around the bay and Salt creek.

12 Stockade site recent on Peconic bay south of Cutchogue on the east side of Fort Neck. The earth walls erected to support the stockade were recently visible and the inclosure embraces about three-fourths of an acre.

13 Village site near the shore east of Cutchogue.

14 Burial site in which pottery has been found, one-half of a mile east of Southold village.

15 Village site on the opposite shore of the bay and near School 5.

16 Village site and shell heap along Greenport harbor and east of Greenport village.

17 Fort on Shelter island dating from 1639. There are large mounds of shells now indicating the site.

18 Burial on Shelter island on the Dickerson farm near South Ferry.

19 Village site on the Horsford estate. Pottery has been found here.

20 Village site on the Dickerson and Clark farms. Pottery and other relics have been found.

21 Large shell heaps on the west side of Gardiners island and along Gardiners bay.

22 Village site on the east shore of Lake Ronkonkoma. Many quartz arrowheads and other relics have been found in this vicinity.

23 Village site nearly a mile southwest of Islip along the Champlin creek. This was near Olympic. Apparently this is the site of the Secatogue settlement.

24 Shell heap near Patchogue.

25 Burial site on the south side of Fresh pond on the Dickerson farm Patchogue.

26 Village site and shell heap west of Brookhaven.

27 Burial site at Brookhaven on the Selah B. Strong property.

28 Village site 3 miles southeast of Brookhaven along the neck. This may have been the village site of Unkuchaug.

29 Village site on Secatogue neck.

30 Village site near Mastic, along the Forge river.

31 Village site near Moriches.

32 Village site near West Hampton and along the creek.

33 Village and burial site on the main road from Shinnecock reservation to Canoe Place. The burial site was in a sand bank, and the village lay just north of it.

34 Extensive village site along Sebonac creek, and near Peconic bay. This was excavated in 1901 by Harrington and Parker for the American Museum.

35 Burial site on Sebonic neck near Cold Spring pond. An early Shinnecock village was near here.

36 Village site near Weecop bay. A number of relics have been found in this place including celts, sinkers, flints etc."

37 Village site between North Sea and Rose Grove and along the shore to Peconic bay.

38 Extensive village site near Sag Harbor.

39 Burial site along the bluffs overlooking Sag Harbor bay.

40 Village site and shell heap on Hog Neck or Hogonock, a little northwest of Sag Harbor. Bone implements and pottery have been found here.

41 Village site southwest of Sag Harbor not far from Long pond.

42 Village site near Three Mile harbor on the west side near Grassy Hollow. This seems to have been a place where wampum beads were manufactured.

43 Sachems Hole was midway between Sag Harbor and East Hampton and was regarded as the spot where Poggatacut's head rested in 1651 when his body was sent down on the way to his grave. The hole was 1½ feet deep and about the same width. It was regarded with reverence by the Indians of the locality who kept it clean up to the time of the American Civil War.

44 Fort on Nominick hill near Nespuague. This seems to have been the site of the fort erected in 1661.

45 Camp site or workshop near Fort Pond, south of Montauk.

46 Earthwork and ditch on the northeast side of Fort pond and on Fort hill. The fort has been described as 100 feet square, but W. W. Tooker measured it 180 feet. The fort has been demolished.

47 Burial place near Fort hill.

Sullivan County

List of Sites

site with scattered relics indefinitely situated on Indian in Bethel, in the southwest portion of the township.
ms in line with a natural trail down Halfway brook to e river.
site near Mamakeling Hollow along the Basherkill Wurtsboro.
and burial site on Big island 2 miles above Cochecton.
ıle number of graves have been found on this site.
ınd burial site in the town of Cochecton on the Alfred ty.
ınd burial site near the village of Burlingham near the

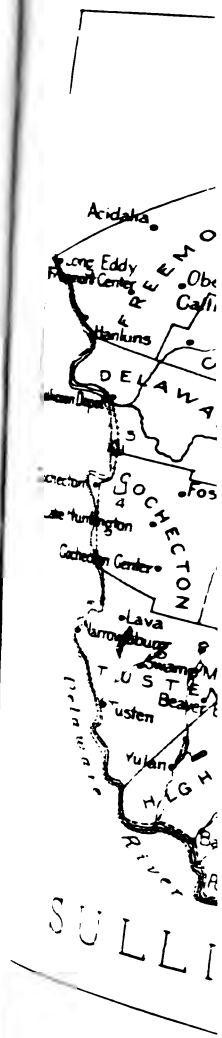
Tioga County

List of Sites

site covering 2 acres on the Peter Caryl farm, at the atonk creek in the town of Candor, on the southwest eek, near the railroad.
te on the G. H. Thomas farm west of Owego creek, brook on section 3, at the township and on either lot 3

te on the George Burt farm north of Canatonk, east creek.
site in Newark Valley township on the west bank of , in the fourth parallel range of lots, probably on is about 2 miles north of Newark Valley village. This farm of George Shaver.
te on lot 217 connected with the village formerly

es on both sides of the creek on lot 257 and covering an d between the railroad track and the West valley road. cated a long occupation and there are many ash pits.
te on lot 22, Newark Valley, on the Holden farm. This east branch of Owego creek and much pottery and ıve been found.
te on lot 22 on the Edward Wade farm.
ite on lot 98, Newark Valley, on the E. V. Clinton east side of Owego creek.



County

Sites

s indefinitely situated on
west portion of the
al trail down Halfway

Hollow along the Baste

sland 2 miles above Coche
ve been found on this
wn of Cochecton on the

village of Burlingham

unty

Sites

the Peter Caryl farm
of Candor, on the

s farm west of Owego
he township and on either

farm north of Canaton

township on the west
l range of lots, probab
f Newark Valley village

ed with the village

reek on lot 257 and cover
rack and the West valley
and there are many ash
lley, on the Holden farm
creek and much potter

ard Wade farm.
Valley, on the E. V.
k.

Plate 224

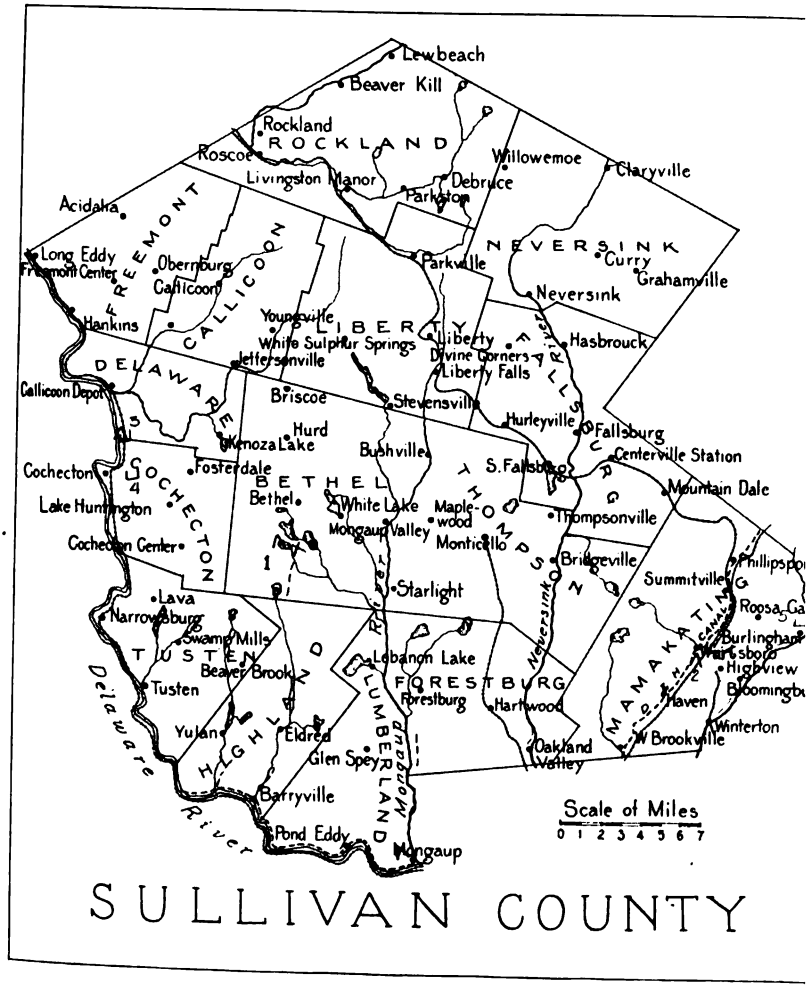


Plate 225


Scale of Miles
0 1 2 3 4 5 6 7
TIOGA COUNTY
RICHFORD
Richford
BERKSHIRE
Berkshire
Wilson Creek
Willseyville
Jenksville
Ketchumville
N. Spencer
SPENCER
CANDOR
West Branch Owego Creek
NEWARK VALLEY
W. Newark
Newark Valley
Spencer
W. Candor
Candor
Weltonville
Catatonk
Strait Corners
Flemingville
Halsey Valley
Gaskill
N. Barton
Reniff
BARTON
Lockwood
OWEGO
Campville
TIOGA
Susquehanna River
Tioga Center
Lounsbury
Barton
Smithboro
Hooper Valley
Nichols
E. Nichols
S. Owego
Waverly

10 Village site on lot 184 a little below the site on the Shaver farm, lot 217. This site is located on the William Hammond farm and is near Wilson creek.

11 Village site on lot 140 just west of Newark Valley on the Harry Evans farm.

12 Village site on lot 103, just south of Newark Valley. Much pottery and other relics have been found.

13 A mound reported 1 mile south of Newark Valley and near the east bank of Owego creek, and not far from the bridge.

14 Camp site on the Luke Fleming property just northeast of Flemingville and on the south bank of East Owego creek, probably on lot 36, Owego. Soapstone pottery and clay pottery are found at this place.

15 Village site on the Gilbert Trune farm, Owego.

16 Village and burial site on the Brown farm, Owego.

17 Village site on the John Fleming farm just south of Flemingville and on the east bank of Owego creek.

18 Camp site on the G. H. Pumpelly property on the east side of Owego creek.

19 Village and burial site west of Owego creek and in the corporation of Owego.

20 Village site in Owego, south of the river, and near the D. L. & W. railroad bridge, north of the tracks.

21 Village site on the Goodrich farm on the flats on the north bank of the Susquehanna.

22 Village site on the Isaac Crab farm, Owego. The Owego sites are reported by Gilbert S. Trueman.

23 Village site on the George Nichols property on the south side of the river and east of the railroad station.

24 Village site on the Catlin property and east of the mouth of Appalachin creek on lot 89, Owego.

25 Village site on the B. F. Tracey land on lot 78, Owego. This was west of the river and opposite Campville.

26 Village site south of Hiawatha island, near the river.

27 Village site near the mouth of Nanticoke creek nearly opposite Hiawatha island.

28 Camp sites north of the Susquehanna and just east of the Appalachin Ferry.

29 Village site on the Henry Tillbury property north of the river and on the south bank of Nanticoke creek. This was an extensive site.

30 Village site on the Kidder's School farm, Tioga.

31 Burial site on the lands of Platt and Johnson, in the town of Tioga, on the top of the cliffs overlooking the west bank of Owego creek.

32 Village site on the George Ingersoll farm, near Tioga Ferry.

33 Village site on the William Lownsberry farm just east of Tioga Ferry.

34 Camp site on the Bauer property near Tioga Center.

35 Camp sites northeast of Tioga Center near the mouth of Pipe creek.

36 Camp site on the Hardman Coal property on the northwest bank of the Susquehanna.

37 Camp sites on the George Ferguson property north of Tioga Center.

38 Camp site southwest of Tioga Center along the river.

39 Early village site on the La Monte property.

40 Village site on the Charles Smith property just east of Canfield Corners. A considerable quantity of relics are found in this locality.

41 Camp site just west of Smithboro and on the north side of the Susquehanna river.

42 Village site on Corealls flats between Smithboro and Barton.

43 Camp site east of Smithboro and along the river bank near a small stream flowing from the north.

44 Village site in the town of Nichols and between the village and the river.

45 Camp site on lot 16, Nichols, nearly opposite other camps in the town of Tioga, across the river.

46 Village site west of Nicholas, near the bend of the river. The cut in the river bank made by the water reveals some fine specimens of pottery and aboriginal implements at this point.

47 Village site on the south bank of the Susquehanna, southwest of Hooper valley, which is crossed by the railroad tracks and public road. This is an early site from which soapstone pottery is found.

48 Village site on the F. E. Ingersoll farm, Nichols.

49 Village site on the Ward Sherwood farm, Nichols.

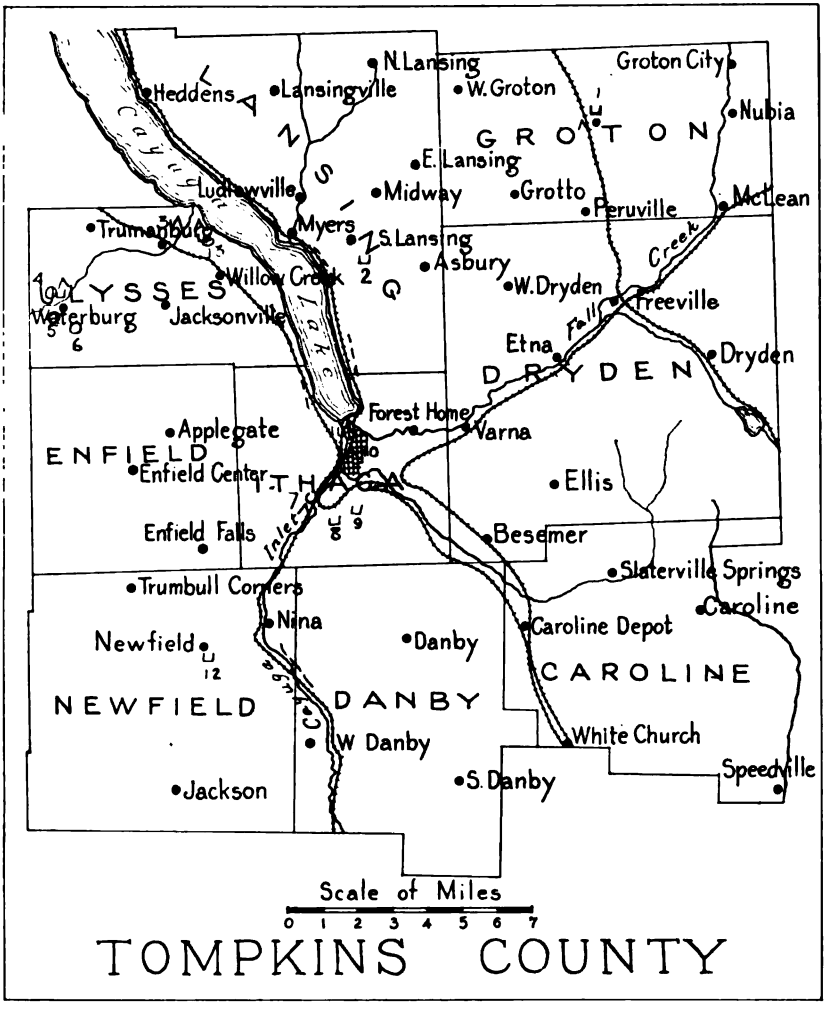
50 Village site on the Charles Denham farm, Nichols.

51 Village site on the H. C. Harris farm, Nichols.

52 Village site on the John Johnson farm, Nichols.

53 Burial site one-half of a mile west of Barton, near the river.

Plate 226


N. Lansing
Groton City
Heddens
Lansingville
W. Groton
Nubia
GROTON
E. Lansing
Ludlowville
Midway
Grotto
Peruville
McLean
Myers
S. Lansing
Asbury
Creek
Trumansburg
Willow Creek
ULYSSES
W. Dryden
Treeville
Waterburg
Jacksonville
Fall
Etna
Dryden
DRYDEN
Forest Home
Varna
Applegate
ENFIELD
Enfield Center
ITHACA
Ellis
Enfield Falls
Besemer
Slaterville Springs
Trumbull Corners
Caroline
Nina
Caroline Depot
Newfield
Danby
CAROLINE
NEWFIELD
DANBY
W Danby
White Church
Jackson
S. Danby
Speedville
Scale of Miles
0 1 2 3 4 5 6 7
TOMPKINS COUNTY

54 Camp site in Tioga on the north side of the river near a small brook.

55 Camp site on lot 7, town of Nichols.

56 Village site on the Manghatamanga flats.

57 Village site on the east side of the Susquehanna and just north of the state boundary line in the town of Nichols.

58 Camp site one-half of a mile northwest of Waverly.

59 Village and burial site on the north side of the Susquehanna in the military tract above Waverly.

60 Camp site on the east side of Cayuta creek 3 miles north of Waverly village.

61 Camp site on the west side of Cayuta creek on the mouth of Miller run.

62 Camp site on the east side of Cayuta creek on lot 157 one-half of a mile north of Lockwood.

Tompkins County

List of Sites

1 Burial site near Groton along the Owasco creek. There are also evidences of a village site in this vicinity.

2 Burial site on the Fay Townley farm near the village of South Lansing.

3 Village site near the mouth of Taughannock creek.

4 Fort and burial site near Waterburg one-half of a mile west of Waterburg on the banks of Taughannock creek.

5 Fort and burial site one-half of a mile west of Waterburg. This site is cut in two by the road which passed over two small creeks. The earthwork is on the north side of the road and the burial opposite. This seems to have been one of the villages that was not touched by Sullivan. Beauchamp describes this site as No. 4 in Tompkins county and gives a plan in figure 81. This site was also described in American Antiquarian, 1897, and in a paper by F. E. Herrick.

6 Earthwork on a bluff just southeast of this site, along a small creek. A wall across the bluff from east to west furnished a wall for the support of a palisade. This seems to be upon the property of Caleb Wickson. The earthwork is reported by Barrott as nearly circular but with an elongation of the wall near the south gate. This site is upon a bluff overlooking the valley of the Taughannock and is not far from Perry City. Doctor Beauchamp describes this site and gives its plan in his figure 86.

7 Village site southwest of Ithaca and west of the Cayuga inlet.

8 Burial site at Coreorgonel.

9 Burial site south of Ithaca on a bluff known as East hill, on the Doctor Parker estate north of Buttermilk Falls.

10 Village site in the corporation of Ithaca where early explorers found much clear land and fields.

11 Village site at the head of Cayuga lake. The Cayuga Indians had a village of adopted Tedarighroones settled at this place and the site has been described as Totieronno.

12 Burial place in the town of Newfield on the property of Fred Thompson, near Newfield village.

13 Village and burial site on the south side of the mouth of Taughannock creek.

Ulster County

List of Sites

1 Burial place north of Fawns village along a small creek, and midway between West Saugerties and Quarryville.

2 Village site on the Fred Russell farm near Saugerties village.

3 Village site on the Howard Gillespee and Latham farm.

4 Village site on the George Washburn farm, (Schroder farm).

5 Fortification on the R. R. Crowell farm near Malden.

6 Village site and garden beds near the junction of Sawkill and Esopus creek. This was near the village of Sawkill.

7 Village site near which there were formerly cleanings and Indian orchards, near Olive, not far from Temple pond.

8 Burial site on the Benjamin Turner property near Olive. Some of the graves here have been opened and early stone relics have been found.

9 Village site at Glasco on the shore of the Hudson.

10 Village site in the city of Kingston along the shore.

11 Inscribed rock on the shores of the Hudson on the Parker estate east of Esopus and near the landing.

12 Village and burial site at Ponckhockrie; mentioned by Beauchamp.

13 Earthwork in Marbletown, mentioned by Schoonmaker. The site is known as Willtmeet.

14 Village site on the Louis Bevier property in Marbletown.

15 Village site on Rondout creek near Pine Bush, with a few scattered relics.

ı and west of the Cayuga

. bluff known as East hill,
termilk Falls.
of Ithaca where early

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ıones settled at this place
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'ewfield on the property of

he south side of the

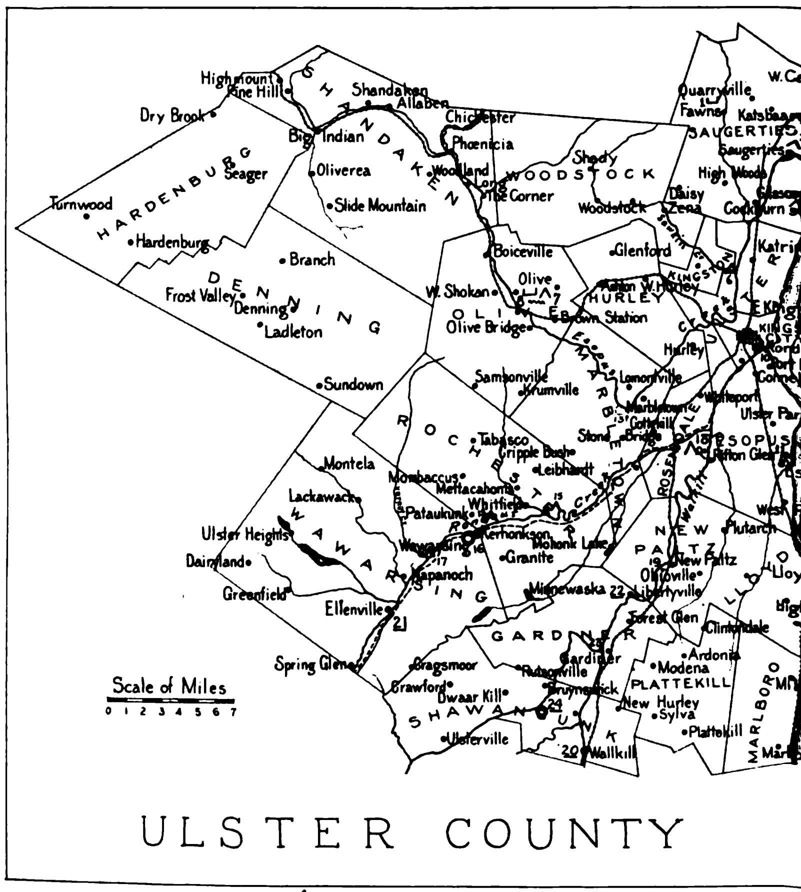
'ounty

Sites

village along a small creek
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llespee and Latham farm
ıshburn farm, (Schroder
'owell farm near Malden
ıear the junction of Sawk
village of Sawkill.
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ırner property near Olive.
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ıgston along the shore.
s of the Hudson on the
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ınckhockrie; mentioned by
ıentioned by Schoonmaker
ier property in Marbletown
: near Pine Bush, with a few

Plate 227



5 Extensive early village site on Meadow run and Glendun brook west of Glen lake. Numerous early relics have been found at this point, some of them were exceedingly fine. The ground is sandy and the spot protected by the highlands to the north.

6 Early site on the grounds of the Birdsall Hotel in Glen Lake village. Algonkian pottery, flints and net sinkers have been found.

7 Village site on Half Way brook south of Queenbury.

8 Village site on the highlands upon the Hudson, near Glens Falls. This locality has been occupied at various periods.

9 "Camp site on Cold brook north of Sandy Hill."

10 Village site on Bay road on the Titus farm."

11 Village site at Big Bend on the lowlands on the north bank of the Hudson river. The occupations are much mixed. There is a cemetery on the west bank.

12 Camp site on Sunnyside lake where many slate knives, beveled scrapers and flint objects have been found.

13 Village site on Van Wormers bay on Lake George.

14 Village site on Dunhams bay at a point sometimes called Harrisena. The Rev. O. C. Auringer, who reports this site, says that it is extensive and that numerous implements, such as polished axes, polished slate knives, banner stones, gorgets, scrapers and other utensils have been found there.

15 Village site in Lake George on the Fort William Henry property. Algonkian pottery and several large spears of flint were found here by the writer in 1909 and 1910.

16 Camp site at Bolton on the point. Polished slate objects have been found here.

17 Camp site at Hague. The State Museum has a number of flints and polished stone articles from this point.

Washington County

List of Sites

1 Camp site west of the Delaware and Hudson railroad along Lake Champlain between the mouth of Mill brook and Putnam station. This seems to have been a Mohawk encampment.

2 Camp site with arrowheads was found in the flats between Metawee and Wood creeks.

3 Village site near Fort Ann and on the west side of Wood creek.

4 Village site near Smith's basin east of Wood creek and near Big creek.

Plate 229

ow run and Glen
s have been found
. The ground is sandy
north.
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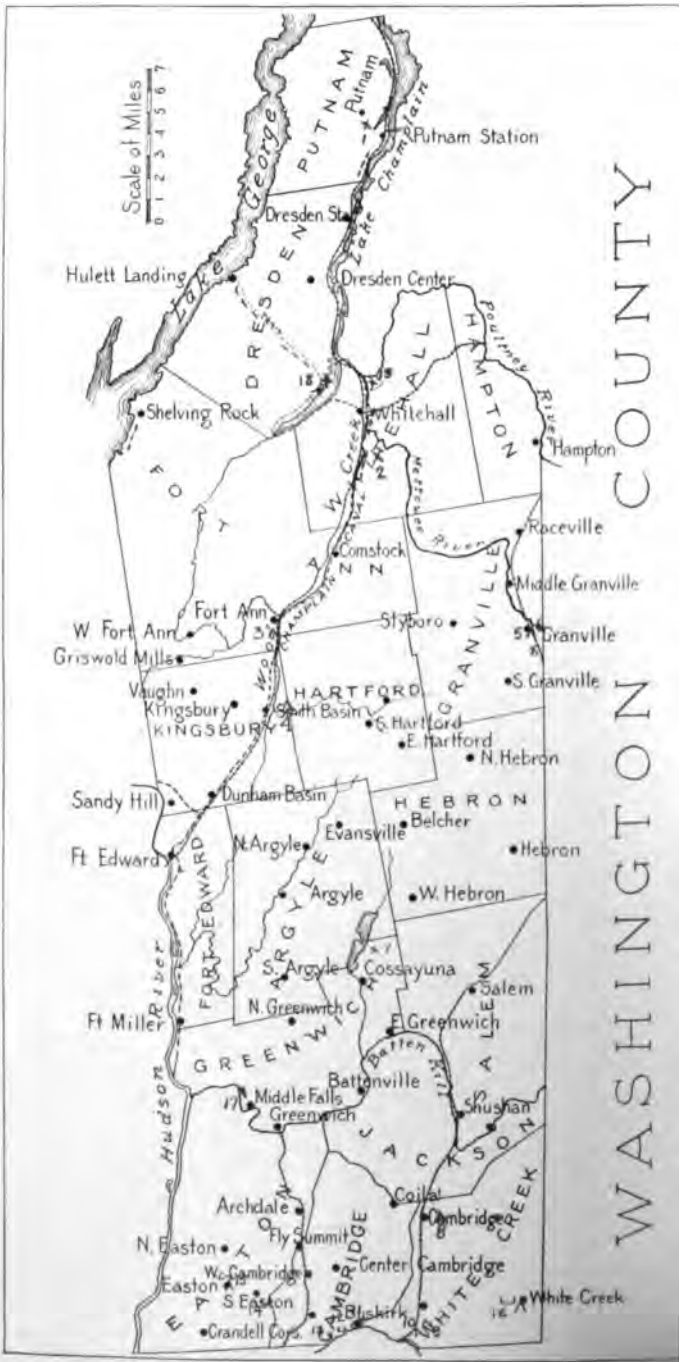
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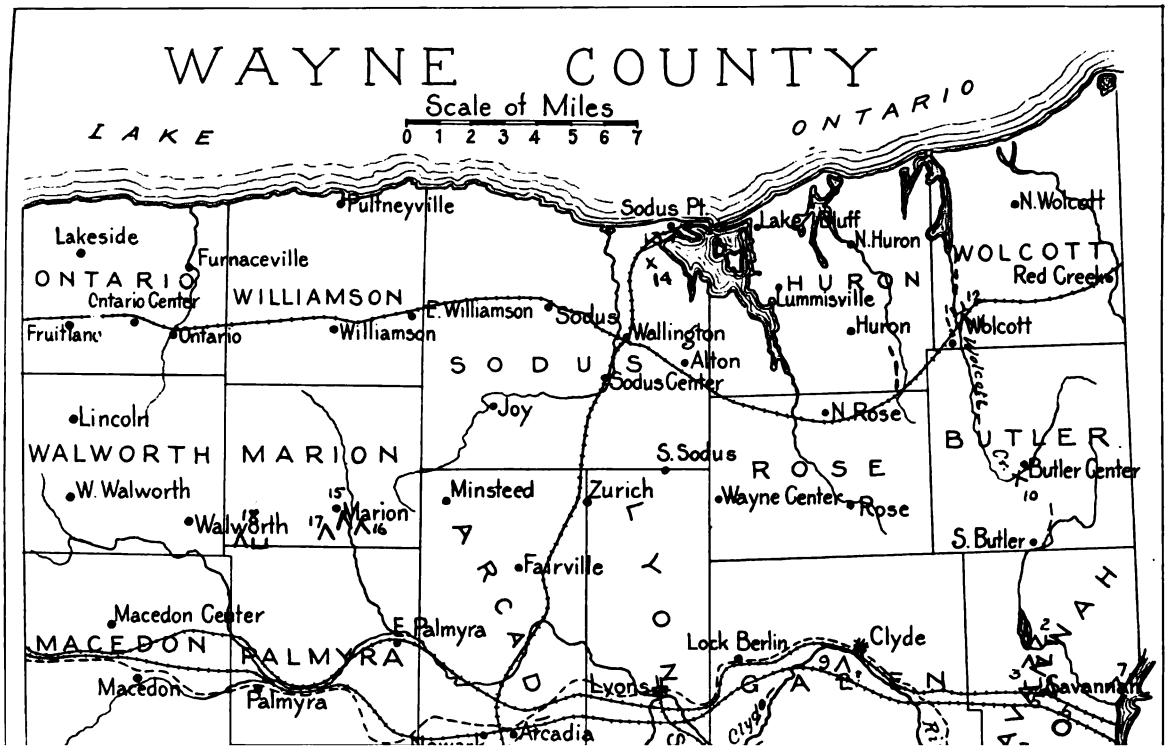
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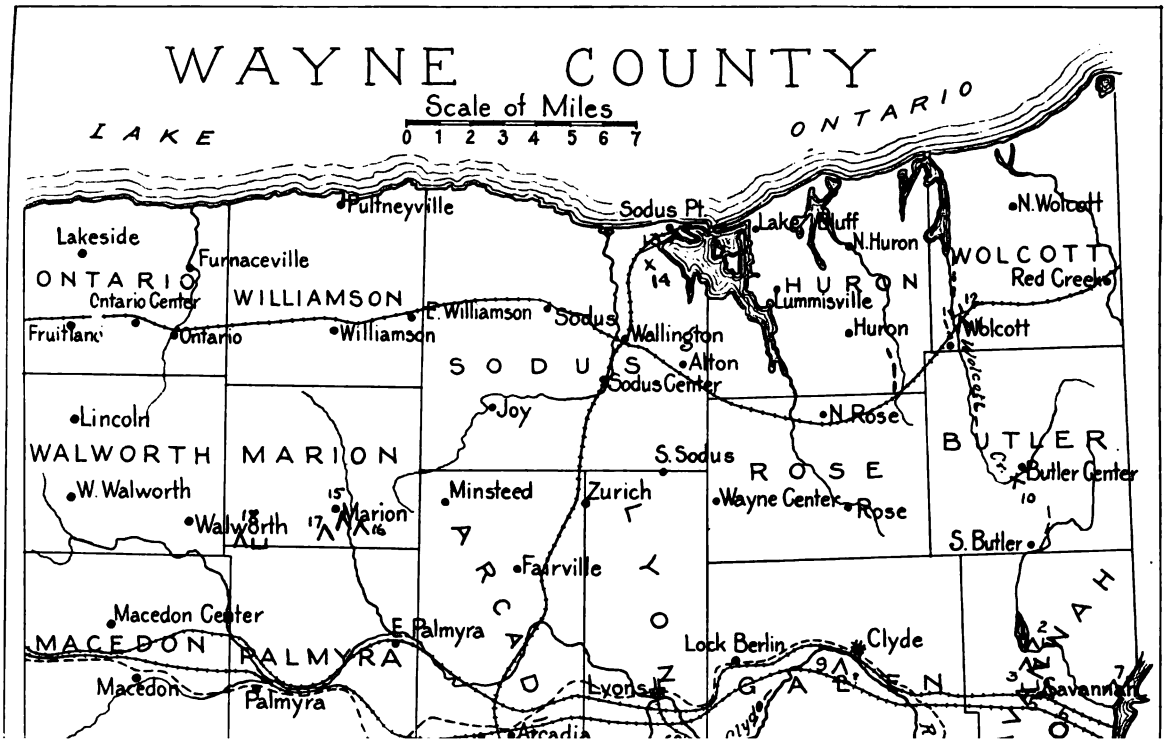
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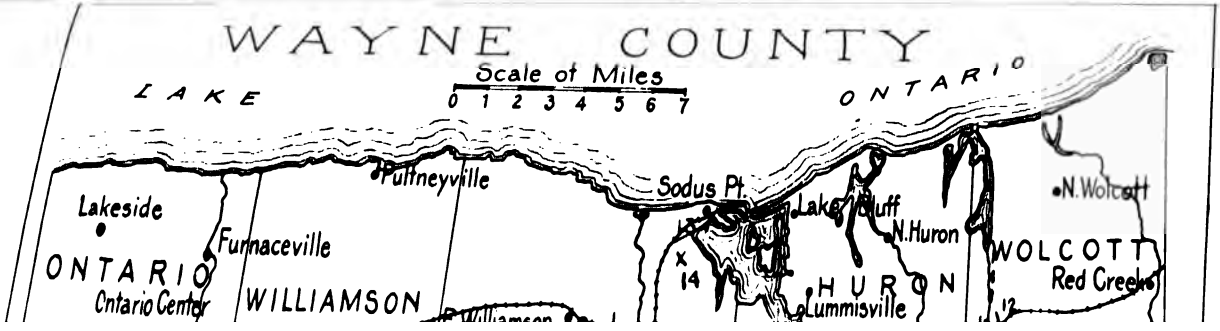
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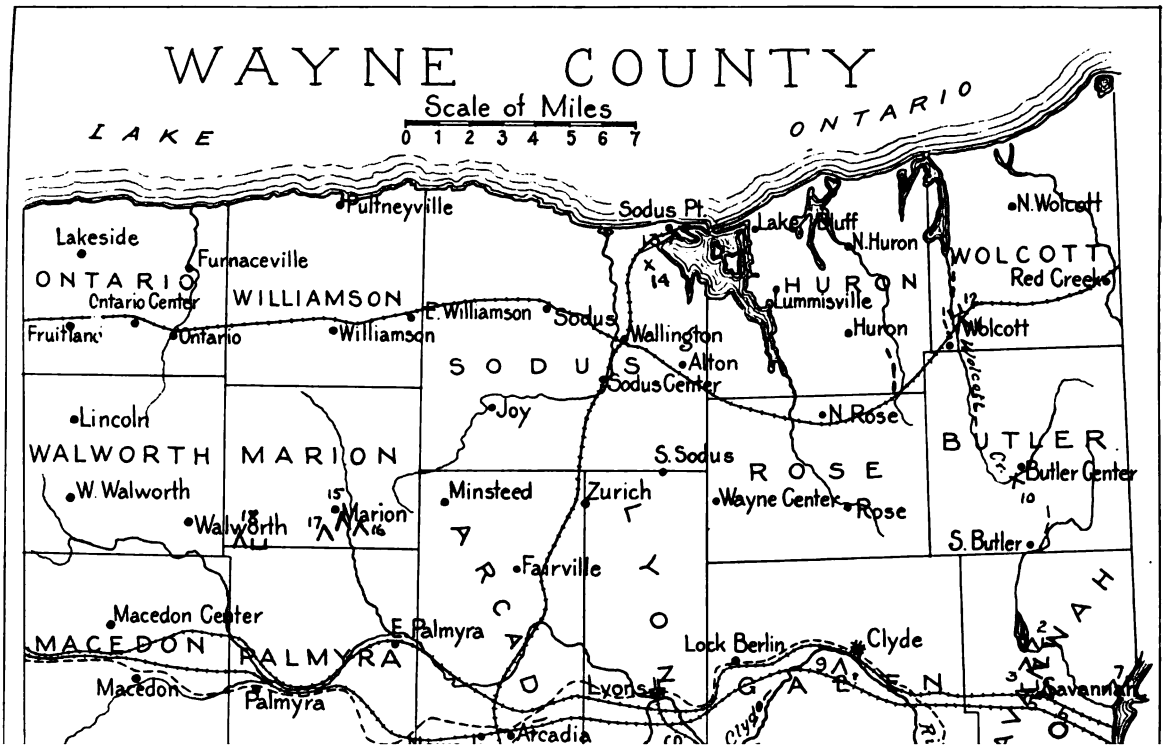


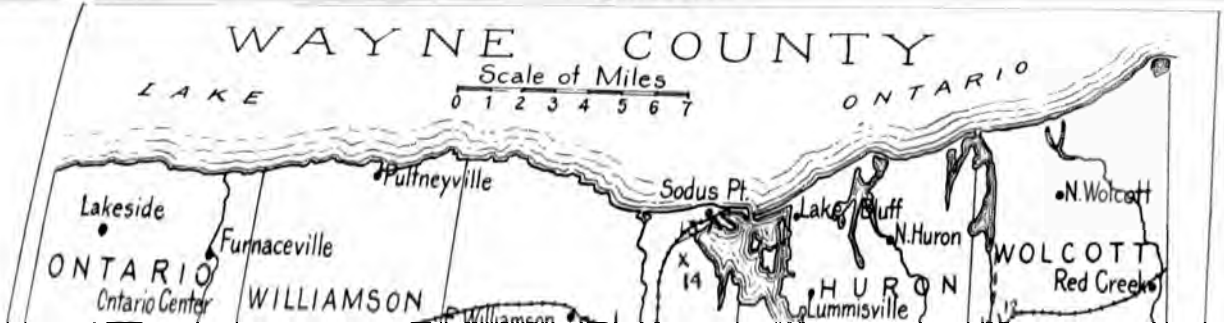
WAYNE COUNTY

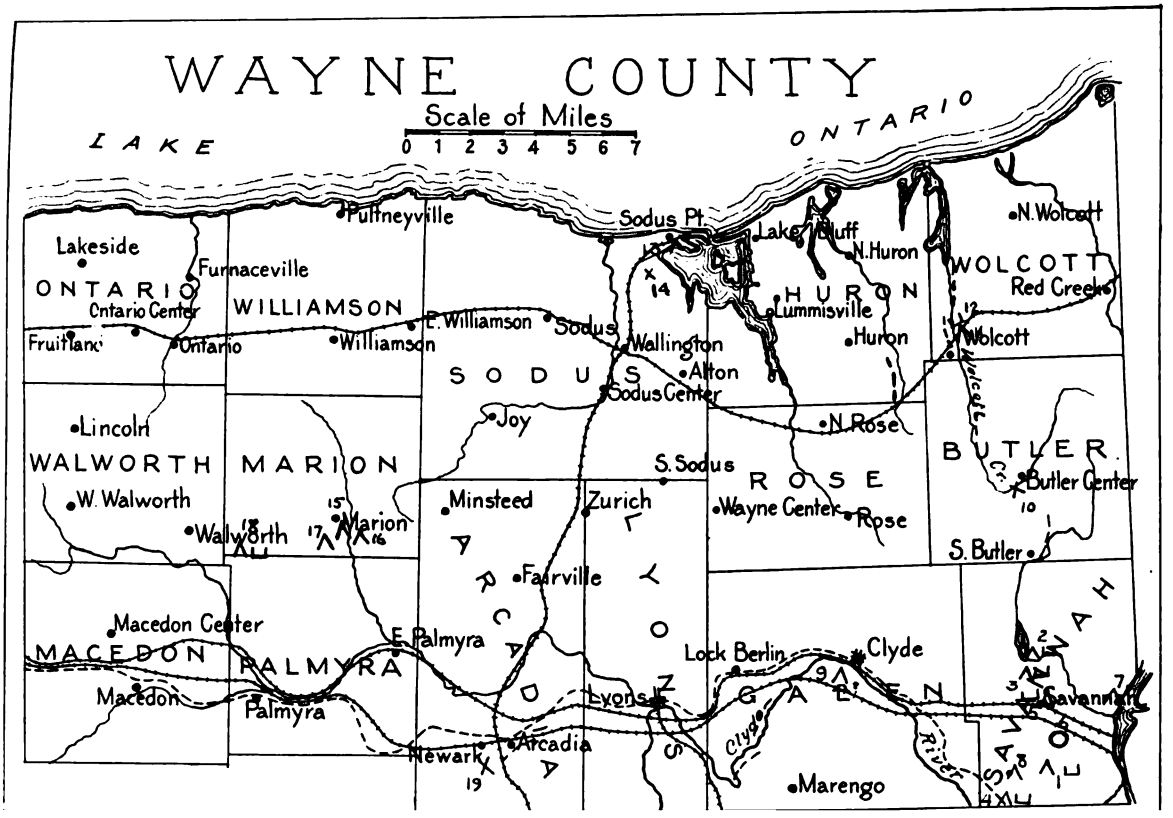

WAYNE COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
LAKE ONTARIO
Pultneyville
Sodus Pt.
Lake Bluff
N. Huron
N. Wolcott
Lakeside
Furnaceville
ONTARIO
Ontario Center
WILLIAMSON
E. Williamson
Sodus
HURON
Cummisville
WOLCOTT
Red Creek
Fruitland
Ontario
Williamson
Wallington
Huron
Wolcott
SODUS
Alton
Sodus Center
Joy
N. Rose
Lincoln
WALWORTH
MARION
S. Sodus
ROSE
BUTLER
Butler Center
W. Walworth
Walworth
Marion
Minsteed
Zurich
Wayne Center
Rose
S. Butler
Fairville
Macedon Center
MACEDON
E. Palmyra
PALMYRA
Lock Berlin
Clyde
Macedon
Palmyra
Lyons
Arcadia
GALEN
Savannah


WAYNE COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
LAKE ONTARIO
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Sodus Pt.
Lake Bluff
N. Huron
N. Wolcott
Lakeside
Furnaceville
ONTARIO
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HURON
WOLCOTT
Red Creek
Ontario Center
Fruitland
Ontario
Williamson
E. Williamson
Sodus
Wallington
Lummisville
Huron
Wolcott
Alton
SODUS
Sodus Center
Joy
N. Rose
Lincoln
WALWORTH
MARION
S. Sodus
ROSE
BUTLER
W. Walworth
Walworth
Marion
Minsteed
Zurich
Wayne Center
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Butler Center
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Macedon Center
MACEDON
PALMYRA
E. Palmyra
Lock Berlin
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Macedon
Palmyra
Lyons
GALEN
Savannah


WAYNE COUNTY
LAKE
ONTARIO
Scale of Miles
0 1 2 3 4 5 6 7
Pultneyville
Sodus Pt.
Lake Bluff
N.Huron
N. Wolcott
Lakeside
Furnaceville
ONTARIO
Ontario Center
WILLIAMSON
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14
HURON
Lummisville
WOLCOTT
Red Creek
12


WAYNE COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
LAKE ONTARIO
Pultneyville
Sodus Pt
Lake Bluff
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N. Wolcott
Lakeside
Furnaceville
ONTARIO
Ontario Center
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HURON
Lummisville
WOLCOTT
Red Creek
Fruitland
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WALWORTH
MARION
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W. Walworth
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Wayne Center
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Butler Center
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E. Palmyra
MACEDON
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Lock Berlin
Clyde
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Lyons
GALEN
Savannah
Arcadia


WAYNE COUNTY
Scale of Miles
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Lake Bluff
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N.Wolcott
Lakeside
Furnaceville
ONTARIO
Ontario Center
WILLIAMSON
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14
HURON
Lummisville
WOLCOTT
Red Creek
13


WAYNE COUNTY
Scale of Miles
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LAKE ONTARIO
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Sodus Pt.
Lake Bluff
N. Huron
N. Wolcott
Lakeside
Furnaceville
ONTARIO
Ontario Center
WILLIAMSON
HURON
WOLCOTT
Red Creek
Fruitland
Ontario
Williamson
E. Williamson
Sodus
Wallington
Lummisville
Huron
Wolcott
Alton
SODUS
Sodus Center
Joy
N. Rose
Lincoln
WALWORTH
MARION
S. Sodus
ROSE
BUTLER
Butler Center
W. Walworth
Walworth
Marion
Minsteed
Zurich
Wayne Center
Rose
S. Butler
Fairville
Macedon Center
MACEDON
PALMYRA
E. Palmyra
Lock Berlin
Clyde
Macedon
Palmyra
Lyons
GALEN
Savannah
Newark
Arcadia
Marengo
Clyde River

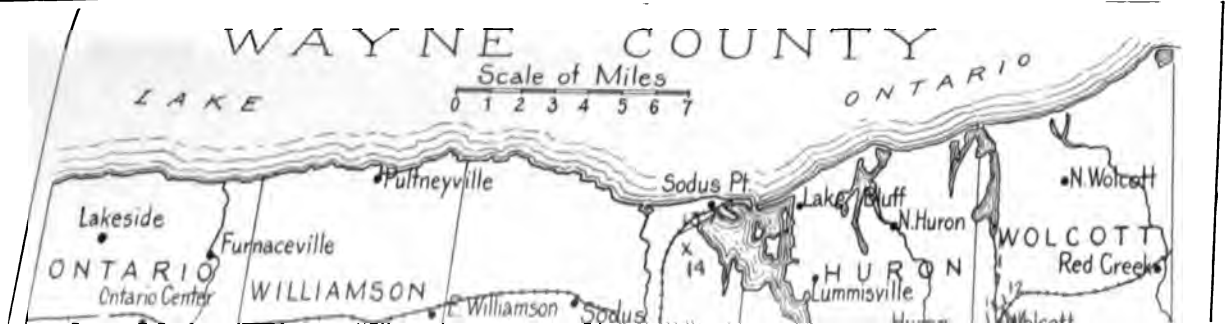
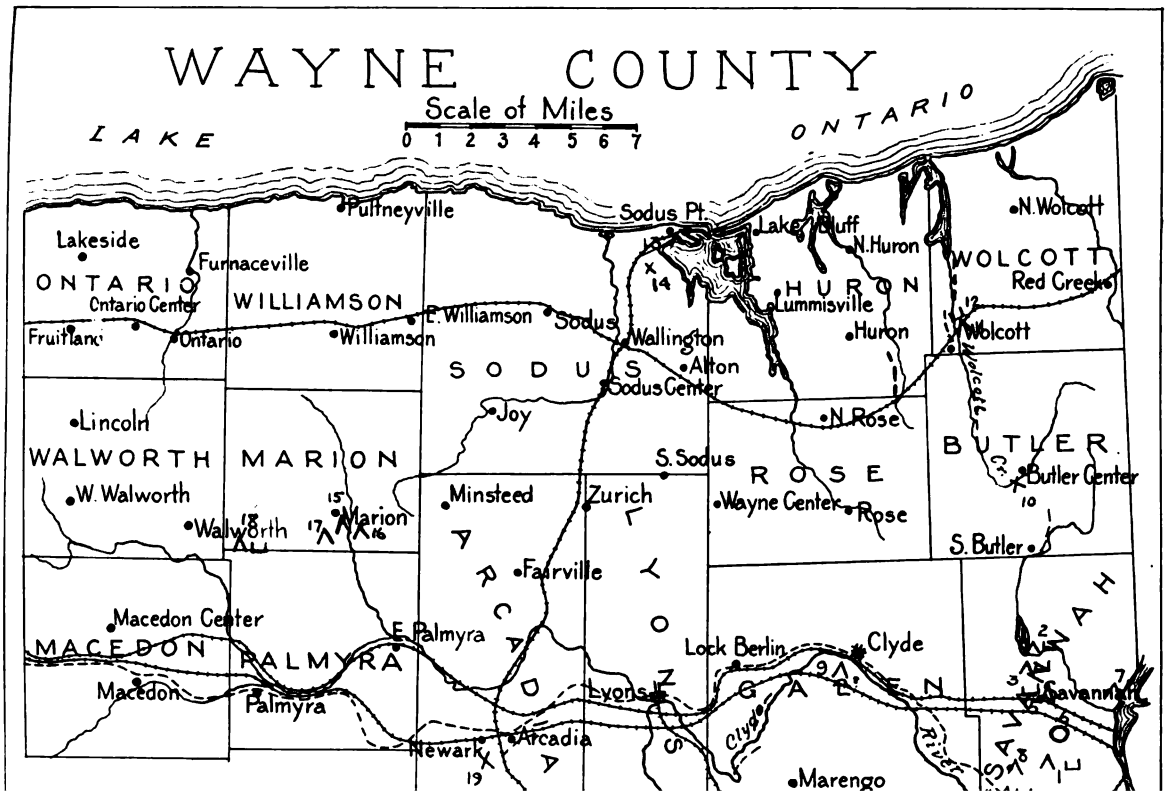

WAYNE COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
LAKE
ONTARIO
Pultneyville
Sodus Pt.
Lake Bluff
N. Huron
N. Wolcott
Lakeside
Furnaceville
ONTARIO
Ontario Center
WILLIAMSON
E. Williamson
Sodus
WOLCOTT
Red Creek
HURON
Lummisville

Plate 230


WAYNE COUNTY
Scale of Miles
0 1 2 3 4 5 6 7
LAKE ONTARIO
Fultneyville
Sodus Pt.
Lake Bluff
N. Huron
N. Wolcott
Lakeside
Furnaceville
ONTARIO
WILLIAMSON
Ontario Center
Fruitland
Ontario
Williamson
E. Williamson
Sodus
Wallington
Alton
Sodus Center
HURON
Lummisville
Huron
WOLCOTT
Red Creek
Wolcott
SODUS
Lincoln
WALWORTH
MARION
Joy
N. Rose
BUTLER
W. Walworth
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Zurich
S. Sodus
ROSE
Wayne Center
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MACEDON
PALMYRA
E. Palmyra
Macedon
Palmyra
Lock Berlin
Clyde
Lyons
Newark
Arcadia
Marengo
Savannah
Clyde River

5
6
This is
7
8
9 Village site
the J. A. Van
10 Village site
11 Garden beds
the Hoosick river.
12 Burial site near
kirk bridge.
13 Large camp site
Cambridge.
14 Burial site on the
15 Village site on the
16 Burial site near W
17 Quarry site near t
the Hudson river an
This site is on the wester
the west side. Percy V
flint with small veins and
implements have been fo
is described in an ar
the Arch
on the

5 Camp site near Granville on Metawee creek near the mouth of Indian river.

6 Village site in the corporation of Granville on East Main street. This is on the J. Warren Gray property.

7 Village site on the east side of Cossayuna creek.

8 Village site near Cambridge on the north branch of White creek.

9 Village site in the town of White creek and south of Owl hill on the J. A. Vandenburgh property.

10 Village site on the Moses farm just west of the former.

11 Garden beds east of Buskirk bridge and on the north side of the Hoosick river.

12 Burial site near the mouth of Wampecack creek west of Buskirk bridge.

13 Large camp site just west of this point in the town of Cambridge.

14 Burial site on the E. J. Skitt property near South Easton.

15 Village site on the Walter White property near Easton.

16 Burial site near White creek village in the Walloomsack patent.

17 Quarry site near the Battenkill, town of Easton, 2½ miles east of the Hudson river and 2 miles west of the village of Greenwich. This site is on the western end of a small hill overlooking the kill and on its west side. Percy Van Epps describes the material as dark black flint with small veins and flecks of white quartz and remarks that no implements have been found on Mohawk sites of this material. He has described it in an article "A primitive quarry in the upper Hudson Valley," (The Archeologist, vol. 3, p. 71, 1895).

18 Camp sites on the west shore of South bay in the township of Dresden.

19 Village site at the "Elbow" on the Champlain inlet north of Whitehall.

Wayne County

List of Sites

1 Village and burial site on the J. Wurts property, lot 91, in the southeast corner of the township of Savannah.

2 Village and burial site on the Woods farm on the north bank of Crusoe creek between Crusoe settlement and the creek. This is not far from the outlet of Crusoe lake.

3 Village and burial site on lot 51 near the south end of Crusoe lake. This was at a point known as Hydes Landing and is on the Rector farm.

age and burial site on the Barrey farm on lot 98 on the south Savannah township.

age and burial site in Savannah corporation in the northwest ıpon the property of W. C. Soule.

thwork situated upon Fort hill south of the village of h, about three-fourths of a mile east of the Main Highway,).

age site on lot 67 on the west bank of Seneca river opposite hwestern point of Howland island.

age site on lot 90 on the Ferrand farm between two roads north.

age site and an unexplored mound on the south bank of the ver near the mouth of a small brook near Clyde station.

mp site near the junction of two small streams south of enter.

llage site northeast of Walcott village between Walcott creek naller creek flowing north and parallel with it. This site is New York Central Railroad tracks.

ırial site along Walcott creek and between the villages of Fur- l Walcott.

llage site near Sodus point on the west side of Sodus bay.

mp site on the W. E. Sill property south of Sodus point by Doctor Beauchamp.

llage site near the village of Marion on the Stephen Reeves .

llage site on the John Dean property, Marion.

llage site on the B. F. Curtis property, Marion.

lage and burial site on the southwest corner of Marion) and along two small streams.

mp site near the custodial asylum in Newark.



Westchester County

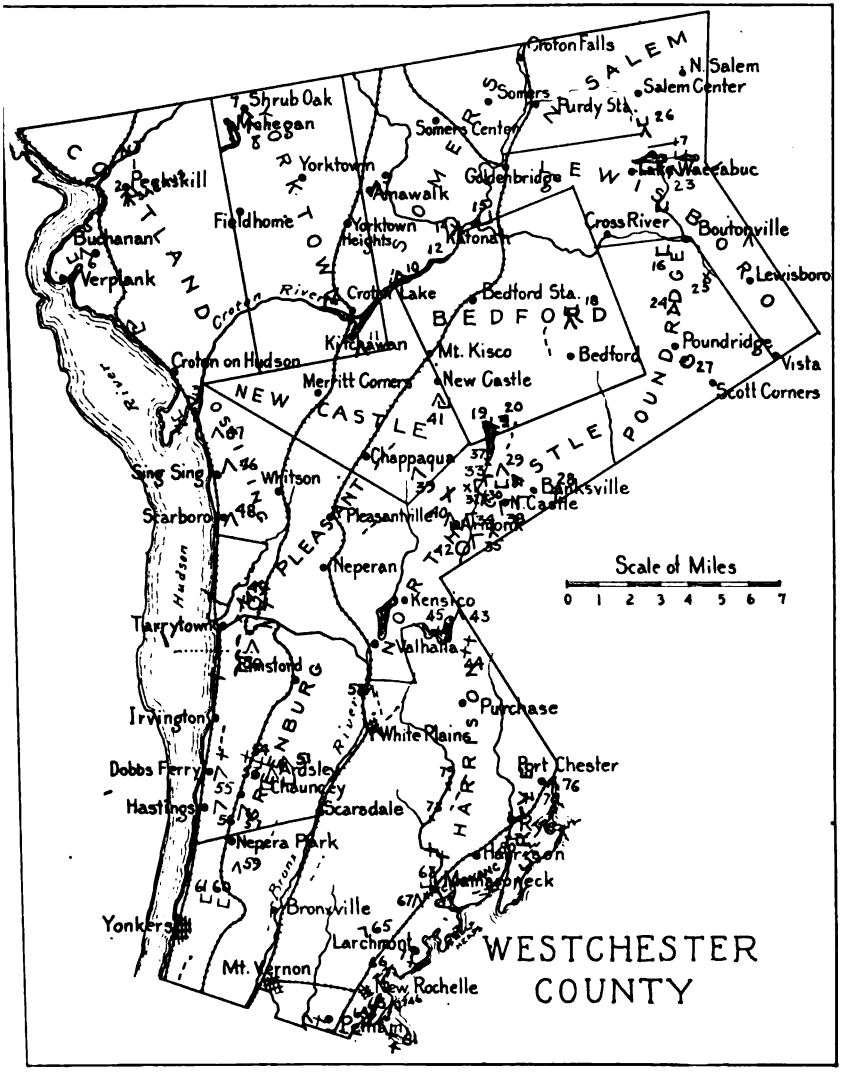
List of Sites

t and village site between Annsville and Peekskill creeks, village of Annsville.

ıge site, formerly Sachus or Sachois, was on the present 'eekskill village and near the creek.

age site of the Kitchawanks near Croton and on the neck n point, formerly called Senesqua neck. M. R. Harrington the area in 1899, and within an earthwork on this site veral skeletons.

Plate 231


Croton Falls
N. Salem
Salem Center
Shrub Oak
Mahegan
Somers
Purdy Sta.
Somers Center
Yorktown
Amawalk
Goldenbridge
Lake Waccabuc
Peekskill
Fieldhome
Yorktown Heights
Katonah
Cross River
Boutonville
Buchanan
Verplank
Lewisboro
Croton River
Croton Lake
Bedford Sta.
BEDFORD
Kitchawan
Mt. Kisco
Bedford
Poundridge
Vista
Croton on Hudson
Merritt Corners
New Castle
Scott Corners
NEW CASTLE
Chappaqua
Banksville
Sing Sing
Whitson
N. Castle
Scarboro
Pleasantville
Armonk
Neperan
Scale of Miles
0 1 2 3 4 5 6 7
Kensico
Tarrytown
Valhalla
Elmsford
Purchase
Irvington
White Plains
Port Chester
Dobbs Ferry
Ardsley
Chauncey
Hastings
Scarsdale
Nepera Park
Harrison
Mamaroneck
Bronxville
Yonkers
Larchmont
WESTCHESTER
COUNTY
Mt. Vernon
New Rochelle

4 Burial place east

5 Small village an
sites on the shore.

6 Village and buri
Company at Verplan
Stony Point.

7 Village site in th
above the north end o
settlement. The villa

8 Village site on th

9 Village and buri
which takes its name

10 Village site nea
brook between the no
tain. The site is on t
tion of two roads run
been obliterated by th

11 Village and bur
on the old Cheadange
this site superficially,
still occupy the farm
events that took place

12 Village site on
Croton river in Some

13 Camp sites alon

14 Camp site on th

15 Burial site at W
and Croton river.

16 Burial site on
town of Poundridge
Poundridge hill.

17 Burial site on t
on the west side of a
village.

18 Village site on
the Indians were mas
of the Wicquaesgeck

19 Camp site on th
corner of Byram lake

20 Rock shelter ju

4 Burial place east of the Van Cortland cemetery.

5 Small village and burial place on Oscawana island, with camp sites on the shore.

6 Village and burial site on the property of the Banner Brick Company at Verplanck. This site is opposite the village site on Stony Point.

7 Village site in the town of Yorktown on Indian hill, 600 feet above the north end of Mohegan lake and not far from the Mohegan settlement. The village site is on the east side of the hill.

8 Village site on the south side of Indian hill.

9 Village and burial site near the present village of Amawalk, which takes its name from the Indian settlement.

10 Village site near the village of Croton Lake and just west of a brook between the north road to Yorktown Heights and Bald mountain. The site is on the north side of the Croton river near the junction of two roads running towards the river. This site has probably been obliterated by the Croton reservoir.

11 Village and burial site near the present village of Kitchawan on the old Cheadange farm. The Rev. Blackie, who has examined this site superficially, says that the descendants of the original family still occupy the farm and its members still recount many interesting events that took place when their ancestors settled the land.

12 Village site on Cranes lake along the ridge of rocks north of the Croton river in Somers.

13 Camp sites along Angle Fly brook.

14 Camp site on the Muscoot river west of Katonah.

15 Burial site at Woods Bridge near the junction of Plum brook and Croton river.

16 Burial site on the road from Boutonville to Bedford in the town of Poundridge and west of Weepuc brook, along the edge of Poundridge hill.

17 Burial site on the headwaters of Lake Waccabuc, Lewisboro, on the west side of a bridge between South Salem and Cross River village.

18 Village site on the south side of Indian hill in Bedford where the Indians were massacred in 1644. This was a well-known village of the Wicquaesgecks.

19 Camp site on the west side of a small inlet on the northwest corner of Byram lake.

20 Rock shelter just east of this and across the stream.

Village site at Cohansey where some Indians lived during the
al period.
Village site on the Potamus ridge on the Beaver Dam river,
ed in 1692.
Village and burial site on Lake Waccabuc, in Lewisboro,
there are mortars in the rocks. This seems to have been a
te location for the early Indians.
Village site in Lewisboro on the north side of the hill, north
village and on the banks of a small stream flowing into Trinity

Large camp site on the west side of Cross pond.
Village site in North Salem. A small cemetery was connected
his. These sites are near the headwaters of Teticus river
ar the Manor House.
Burial site near the Stony hills on the lowland. Corral or
drive is reputed to have been on the ridge south of the present
of Poundridge.
Quarry where quartz was obtained just east of Banksville
ar the headwaters of a small stream flowing south into the
s river, reported by M. R. Harrington.
Village site on the south end of Byram lake in North Castle.
Camp site on the east side of Byram lake just north of a small

Burial ground on Byram brook near the forks of the two roads
oss it about 1 mile south of the outlet.
Camp site one-fourth of a mile below this on the west side of
eam.
Two rock shelters within one-fourth of a mile of each other
west side of a stream.
Rock shelter just below this and northeast of Armonk but
he Byram brook.
Camp site on the west side of Wampus brook just below the
e of the Byram.
Camp site on the southwest side of the outlet of Wampus pond.
Rock shelter near North Castle almost directly west of Banks-
the headwaters of the Mianus river, which flows north and
outhward just south of Bedford.
There are several rock shelters along the headwaters of this
The largest rock shelter was explored by M. R. Harrington,
scribes it under the title of " Finch's Rock Shelter."



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Beaver Dam

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east of Armon

brook just belo

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directly west of Ban
which flows north

g the headwaters of
ored by M. R. Harri
's Rock Shelter."



e site in North Castle on the Chappaqua hills.
:e and burial site on the south side of Roaring brook
)f Armonk.
:e and burial site on Kirbys pond near the village of New

aded site south of Armonk village on the headwaters of
river.
e site on the northeast point of Rye lake. There were
here and a considerable number of relics have been

site in Harrison along the two small brooks that flow
:e at its southeast corner.
site on a neck of land between Rye lake and Little Rye

e site in Sing Sing near the village of Ossining.
e site along the shores of the Hudson about 2 miles
ıg Sing.
e site near Scarboro on the Arnold estate.
cation and mounds near the old Dutch church at Sleepy
he town of Mount Pleasant. Bolton describes this in his
, page 506.
: site at the south end of Tarrytown but on the hill above
re were deep shell banks.
: and burial site near the village of Ardsley in the town
g. These sites have been described by the Rev. W. R.
) furnished the map for the American Museum of Nat-

village site near a small brook flowing westward into
ll river, just south of the outlet of Woodlawn lake.
: site on the west side of Grassy Sprain brook on the
:tween Daisy avenue and Ferncliff road. Cave near
which Mr Blackie made a preliminary examination.
: site near Grants Corners which was probably a Kitcha-

: site at Dobbs Ferry near the mouth of a small stream
tward into the Hudson. There are shell banks and the
m has specimens of chipped flints, pestles and pottery
ation. Historical accounts mention three villages in
seems to have been quite generally occupied.
site near Hastings on the Saw Mill river.
site on Indian hill, in the town of Greenburg.

58 Village site along t
cemetery. The Rev. Blac
grooved axe from here.
59 Village site on the
60 Burial site 2 miles
61 Burial site north of
valley.
62 Stockade site on Be
63 Village site on Dav
was an Indian village in
64 Shell heaps on Dav
65 Quartz quarry in th
on the property of the N
66 Shell heap in New
and Cedar road.
67 Village site in Man
cote hill. This was prob
68 Burial site, probab
of this.
69 Earthworks on the
ably a stockade base.
mound on the south, wit
70 Village site near Pa
extensive shell heaps.
71 Burial place on Bu
72 Camp sites and sh
73 Burial site on Blin
74 Shell heaps and ca
roneck and Milton.
75 Village site and s
island.
76 Village site at Bull
77 Camp site on the s
78 Camp at the forks
small shell deposits are
79 Camp site 4 miles
rock.
80 Large shell heap
of Blind brook. Potter
found.
Camp sites on David

58 Village site along the Bronx river west of the White Plains cemetery. The Rev. Blackie presented the State Museum with a fine grooved axe from here.

59 Village site on the Nepera near Nepperhan.

60 Burial site 2 miles north of Yonkers on Blackwells hill.

61 Burial site north of Yonkers at the beginning of Grassy Sprain valley.

62 Stockade site on Berrains bank.

63 Village site on Davenports neck in New Rochelle, where there was an Indian village in 1746.

64 Shell heaps on Davenports neck.

65 Quartz quarry in the north section of New Rochelle township on the property of the New Rochelle Water Company.

66 Shell heap in New Rochelle, at the crossing of Franklin avenue and Cedar road.

67 Village site in Mamaroneck on the high rocks opposite Heathcote hill. This was probably the village of Kitchawank.

68 Burial site, probably belonging to the village, just northeast of this.

69 Earthworks on the flat land north of Heathcote hill, presumably a stockade base. Bolton mentions four circular pits and a mound on the south, with other works on the west side of the hill.

70 Village site near Parsonage point on Rye neck, where there are extensive shell heaps.

71 Burial place on Burying hill, on Rye neck.

72 Camp sites and shell heaps on Peningoe neck.

73 Burial site on Blind brook in Rye.

74 Shell heaps and camp sites along Mill creek between Mamaroneck and Milton.

75 Village site and shell heap on the south end of Manursing island.

76 Village site at Bullocks landing near Port Chester.

77 Camp site on the shore at Larchmont park.

78 Camp at the forks of Mamaroneck river. Chipped flints and small shell deposits are found here.

79 Camp site 4 miles north of Mamaroneck station near a high rock.

80 Large shell heap 1 mile south of Rye station on the west side of Blind brook. Pottery, argillite arrow and spearheads have been found.

Camp sites on David island just east of Glen island.

Wyoming County

List of Sites

1 Earthwork on the north side of the Genesee. This is a circular work on a hill overlooking the river, about 4½ miles south of Portage above the first fall. This work was described by Reynolds in the Bureau of Ethnology Report, 1890. It seems to be on lot 107, in the town of Genesee Falls. A plan is given by Beauchamp in his figure 83, the basis of which was furnished him by J. S. Minard. Described by Fred Houghton, in the American Anthropologist. Vol. 18, No. 4, Oct.-Dec. 1916.

2 Mound near the earthwork in which interesting and important relics have been found. The fort and mound are apparently on the property of Dunns and Mills and the site is popularly known as Fort Hill.

3 Village site in Perry near the outlet of Silver lake. This was probably the Seneca village of Gardeau.

4 Village site in Warsaw on the S. B. Whitlock property.

5 Village site east of Oatka on the headwaters of Warner creek.

6 Fort site in the town of Bennington on the Barnum and Cameron property near Cayuga creek, not far from the village of Cowelsville.

7 Village sites reported on the headwaters of Buffalo creek, near Java village.

8 Village site reported in Arcade, in the southwest corner on the headwaters of Cattaraugus creek. This, perhaps, was one of the trail settlements between Cattaraugus valley and the Wiscoy road of the Genesee.

Yates County

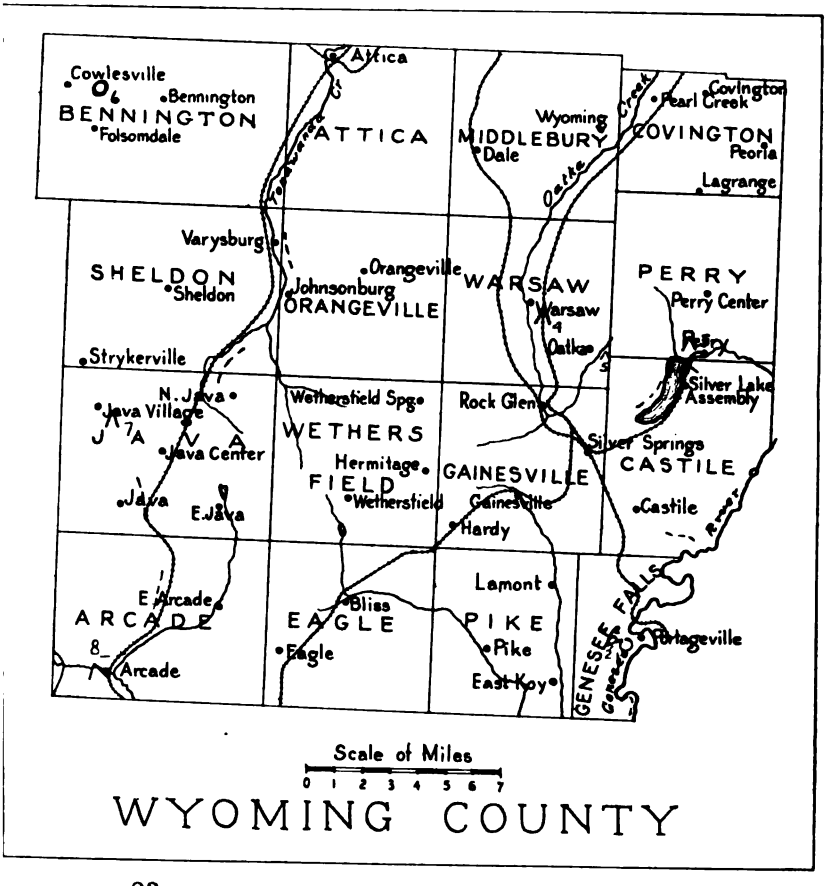
List of Sites

1 Earthwork described as being on lot 70, in the town of Middlesex. This earthwork has never received detailed attention but it is said to have had a low wall of stones and earth with an outside ditch, the whole inclosing an area of 1 acre. Seneca traditions say that the progenitors of the tribe sprang out of the ground from the top of this hill. There are many legends about it.

2 Village and burial site in the Macomb vineyard at Vine valley. Here in the gravel bank have been found several skeletons with which have been discovered copper implements, strings of olivella shells, polished stone tubes, gorgets and other objects similar to those used by the Ohio mound builders.

3 Fort and cemetery site in Shearmans Hollow, lot 48, in the

Plate 233


Cowlesville
Bennington
BENNINGTON
Folsomdale
Attica
ATTICA
Wyoming
MIDDLEBURY
Dale
Pearl Creek
COVINGTON
Peoria
Lagrange
Varysburg
SHELDON
Sheldon
Johnsonburg
Orangeville
ORANGEVILLE
WARSAW
Warsaw
Oatka
PERRY
Perry Center
Perry
Strykerville
N. Java
Java Village
JAVA
Java Center
Java
E. Java
Wethersfield Spg.
WETHERS
FIELD
Hermitage
Wethersfield
Rock Glen
GAINESVILLE
Gainesville
Hardy
Silver Lake
Assembly
Silver Springs
CASTILE
Castile
Lamont
E. Arcade
ARCADE
Arcade
Bliss
EAGLE
Eagle
PIKE
Pike
East Koy
GENESEE FALLS
Portageville
Scale of Miles
0 1 2 3 4 5 6 7
WYOMING COUNTY

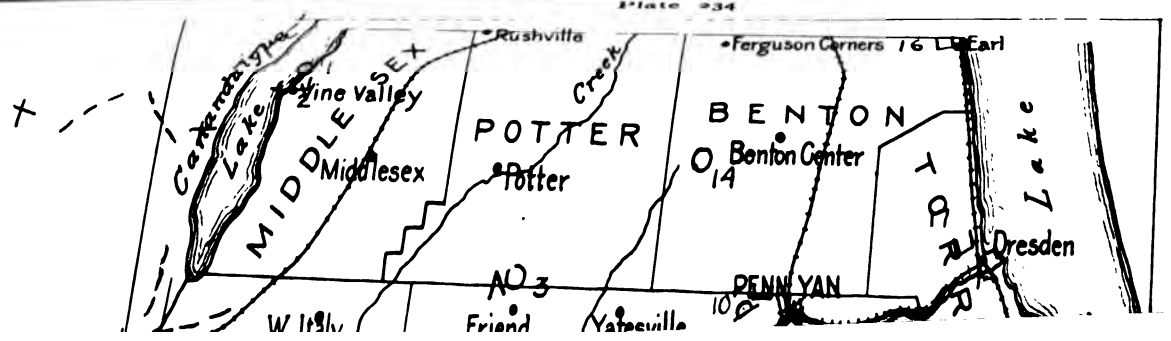
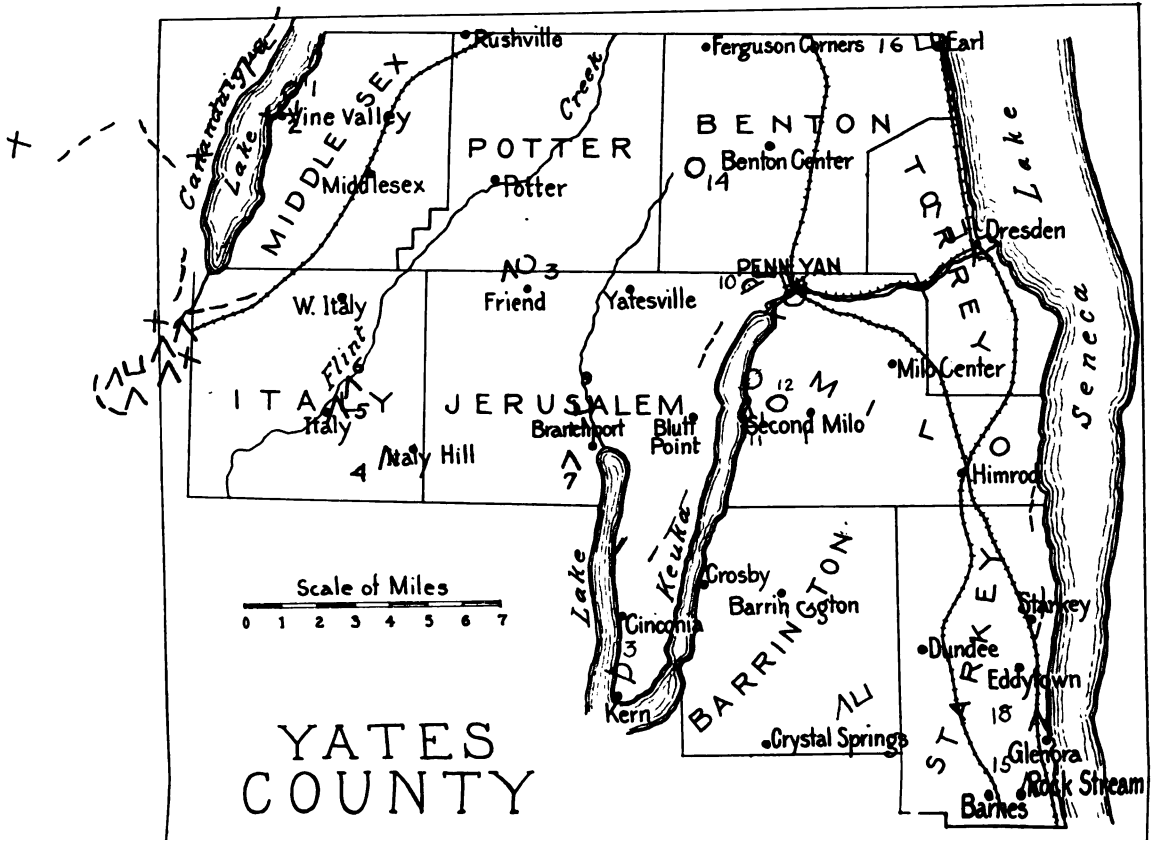

Plate 34
Rushville
Ferguson Corners
Canandaigua Lake
Vine Valley
MIDDLESEX
Middlesex
POTTER
Potter
Creek
BENTON
Benton Center
Lake
Dresden
PENN YAN
Friend
Yatesville

Plate 234


Canandaigua Lake
Rushville
Ferguson Corners
Earl
Wine Valley
MIDDLESEX
Middlesex
POTTER
Potter
Flint Creek
BENTON
Benton Center
TORREY
Lake
Dresden
PENN YAN
W. Italy
Friend
Yatesville
ITALY
Italy
Italy Hill
JERUSALEM
Branchport
Bluff Point
Second Milo
MILO
Milo Center
Himrod
Seneca Lake
Keuka Lake
Crosby
Barrington
Cincinnia
Kern
BARRINGTON
Crystal Springs
STARKEY
Starkey
Dundee
Eddytown
Gilenora
Rock Stream
Barnes
Scale of Miles
0 1 2 3 4 5 6 7
YATES COUNTY

town of Jerusalem. This
on the north line of the to
as the 'Old Fort" and is I
4 Village site on the Pad
Three grooved boulders w
5 Village site in Italy H
revolutionary village. Ther
6 Village site with an or
in Italy Hollow.
7 Village site with groov
in the Guyanoga valley.
8 Burial place nearby on
9 Burial site on the E
Branchport.
10 Mound and burial pla
near Penn Yan. Clevelan
stone on the east side of the
burial place.
11 Burial place on lot 43
east side of the east fork
erty. The occupation seem
predominate.
12 Earthwork on lot 34 r
1 mile east of the lake. Th
was a cemetery westward to
13 Mound on the west si
from its southern end. G
Dr H. S. Wright on lots 5 a
works covered 7 acres. Furth
fifth report of the Regents (
14 Earthwork on lot 104, t
Yan and not far from Benton
15 Village and burial place
of the county. This is known
16 Burial site north of Ea
17 Burial place at Dresden
historic Indians have been fo
18 Village site at the mouth
of the county.
Most of the sites describe
notes of Dr H. S. Wright and
Doctor Beauchamp.

town of Jerusalem. This site was near the village of Frie on the north line of the town. The earthwork was locally as the 'Old Fort" and is Iroquoian, according to Mr Crosby

4 Village site on the Paddock farm 1 mile southwest of Ita Three grooved boulders were found here.

5 Village site in Italy Hollow. This seems to have been revolutionary village. There was an orchard nearby.

6 Village site with an orchard 1 mile north of the Big El in Italy Hollow.

7 Village site with grooved boulders 1½ miles from Bran in the Guyanoga valley.

8 Burial place nearby on the D. W. Dickerson property.

9 Burial site on the Ellsworth farm, 1 mile northe Branchport.

10 Mound and burial place on the west shore on Lake near Penn Yan. Cleveland describes several circular wo stone on the east side of the outlet near the lake, not far fro burial place.

11 Burial place on lot 43 in the town of Milo. This is east side of the east fork of the lake and on the Thayer erty. The occupation seems somewhat mixed. Notched predominate.

12 Earthwork on lot 34 nearly 4 miles south of Penn Y 1 mile east of the lake. The inclosure included 6 acres an was a cemetery westward toward the lake.

13 Mound on the west side of Bluff Point and about 2 from its southern end. Graded ways have been descril Dr H. S. Wright on lots 5 and 6, Bluff Point. He said tha works covered 7 acres. Further reference is contained in the fifth report of the Regents (p. 193).

14 Earthwork on lot 104, town of Benton, 4 miles north o Yan and not far from Benton Center.

15 Village and burial place near Bellona near the southeas of the county. This is known as the Kashong site.

16 Burial site north of Earle station and near the lake s

17 Burial place at Dresden where graves of the prehisto historic Indians have been found.

18 Village site at the mouth of Big Stream in the southeas of the county.

Most of the sites described in this county are taken f notes of Dr H. S. Wright and Miles A. Davis, which were to Doctor Beauchamp.

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The following works are r
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A. A. A. S.	Ame Pr
Adams	Ada Sy
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